

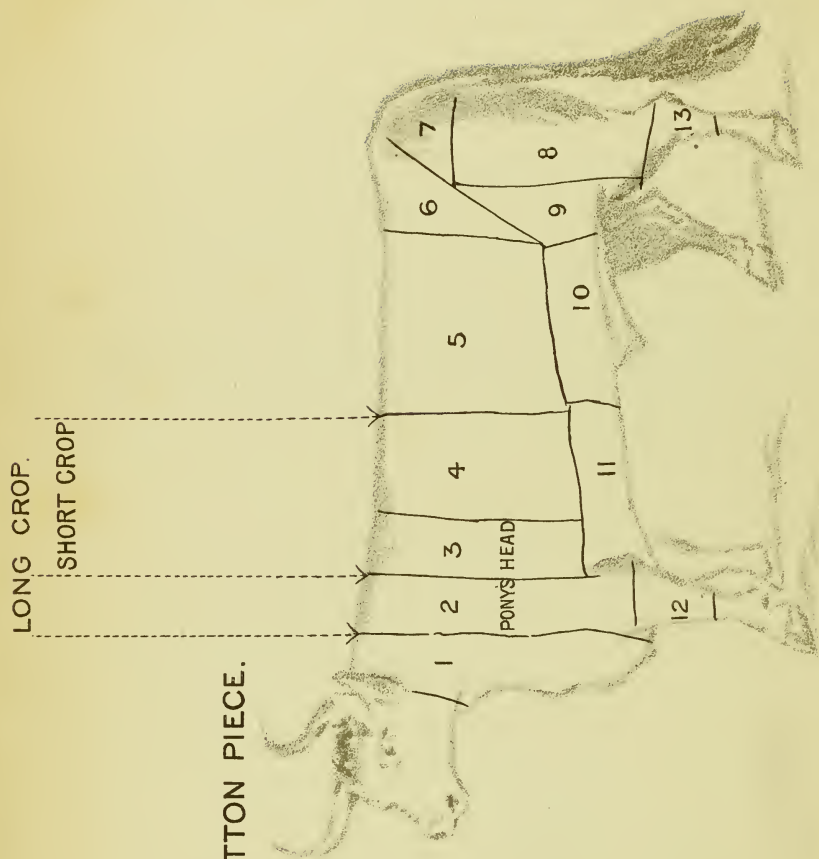


22101896560

2/10

C III K₁₉





1. CLOD & STICKING.
2. CHUCK & LEG of MUTTON PIECE.
3. MIDDLE RIB.
4. FORE RIB.
5. LOIN.
6. RUMP.
7. AITCH BONE.
8. BUTTOCK.
9. THICK FLANK.
10. THIN FLANK.
11. BRISKET.
12. SHIN.
13. LEG.

60685

Dr. Bourns.
Hallon
Spanich

THE INSPECTION OF MEAT

*A GUIDE AND INSTRUCTION BOOK
TO OFFICERS SUPERVISING CONTRACT-MEAT
AND TO ALL SANITARY INSPECTORS*

EMBODYING THE TEACHING IMPARTED TO
THE ARMY SERVICE CORPS

BY
W. WYLDE

CHIEF INSPECTOR OF MEAT FOR THE CITY OF LONDON

WITH THIRTY-TWO COLOURED PLATES

LONDON
KEGAN PAUL, TRENCH, TRÜBNER & CO., LT^D

1890

22258

✓

-6170173

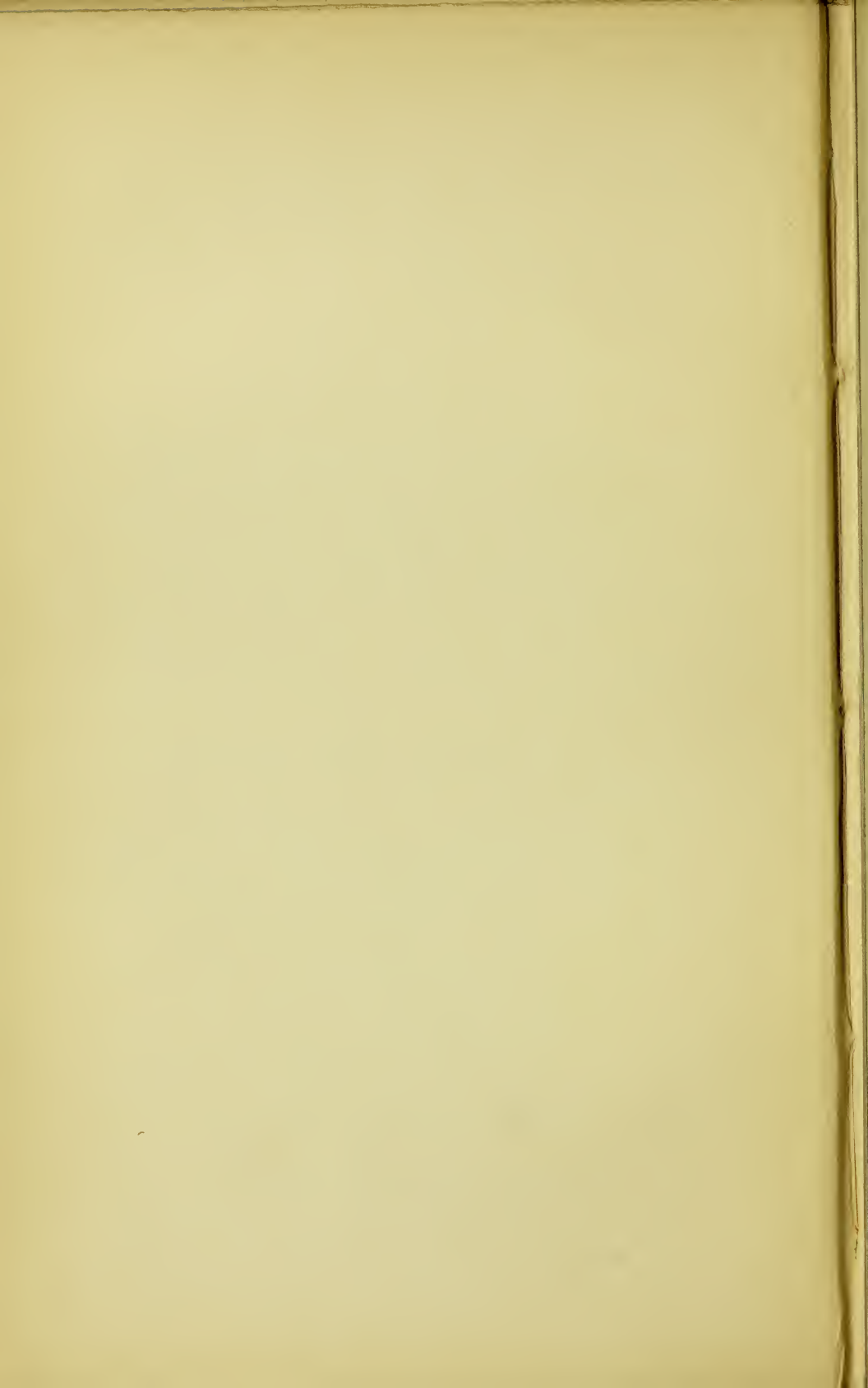
M16428

WELLCOME INSTITUTE LIBRARY	
Coll.	welMOmec
Call	
No.	W1695
	1890
	W980

(The rights of translation and of reproduction are reserved.)

EVERY officer appointed as inspector of meat should make himself acquainted with the slaughtering of animals, and the butcher's method of cutting the carcasses into the requisite known parts. Unsound meat should be classed as follows:—

1. Diseased meat.
2. Meat from animals dying through accident (accidental).
3. Putrid meat. Tainted by weather or other causes.
4. Physicked meat.
5. Dysenteric meat.
6. Fishy meat. Appertaining to pork.



P R E F A C E .

AT the instigation and wish of my friends and pupils, I have condensed the experience of a life's practical knowledge on the subject of meat inspection, and have put it as concise as possible, with the object that the matter contained will form a handbook for reference, earnestly hoping it may be instructive on one of the most important sanitary questions of the day. The sketches (coloured), I have taken from subjects specially selected at the London Central Meat Market, and have found many of them very useful when giving lessons to inspectors who have to supervise contract-meat; I believe the book will be beneficial to officers who receive meat for redistribution, such as stewards of hospitals, masters of workhouses, medical officers of prisons, military and naval departments, etc. I am fully convinced of the desirability that all sanitary inspectors, and officers

appointed inspectors of food, require more information on the subject of meat inspection; unless they have an opportunity of seeing, and being instructed upon the characteristics presentable in diseased carcasses, many lamentable mistakes will arise; for it is equally necessary that sound meat should not be destroyed, as it is of vital importance that unsound meat should be detected and destroyed. The question of sanitation as to drainage and living accommodation is being taken up with great energy and with every success, therefore, the important subject of meat inspection should be as vigorously pursued on the same lines, that is, class-rooms should be formed, and all available means adopted by lectures and instructive lessons given to officers, so that they shall be efficient in discharging the exceedingly responsible duties which they are called upon to perform, zealously and impartially, for the public weal.

INDEX TO PLATES.

PLATE	PAGE
I., II. Joints as described by London Butchers	5
III. Dentition of the Ox	4
IV. Rheumatics or Enlarged Joints in Sheep	50
V. Carcass of a Goat, and the Emaciated Carcass of a Pig	52
VI. Rheumatics or Enlarged Joints in Lambs	54
VII., VIII. The Kidney of a Horse, the Kidney of the Ox, and two Pig's Kidneys	56
IX. A Diseased Quarter of Mutton and one Healthy ..	58
X., XI. Two Diseased Livers and one Healthy	60
XII. A Piece of Good Healthy Beef, and half a Healthy Pig's Carcass	62
XIII., XIV. Lung-diseased Mutton	64
XV. Lung-diseased Beef	66
XVI. Carcasses of Healthy Sheep	68
XVII. Healthy Heifer Beef	70
XVIII. Section of Bull's Carcass	72
XIX. Parturition shown in Carcass of a Pig	74
XX. Parturition shown in Cow's Hind Quarter ..	76
XXI. Hind and Fore Quarter of Old Cow	78
XXII., XXIII., XXIV. Skeleton Drawings	80
XXV. Section of Clean Ox Beef	82
XXVI. Three Quarters of Wether Mutton	84

PLATE	PAGE
XXVII. Cancerous or Lumpy Jaw	86
XXVIII. Sheep's Plucks	88
XXIX. Ram's Carcass and Section, Section of Wether Sheep	90
XXX. Dry-Rot	92
XXXI. Carcass and Section of Smothered Pigs ..	94
XXXII. Parturition shown in Hind Quarters of Ewe ..	96

THE INSPECTION OF MEAT.

THE want of knowledge in respect of the characteristics presentable in carcasses, and the flesh of animals that have suffered through accident or disease, together with the wish of many, has induced me to jot down in a comprehensive form my own practical experience of forty years' standing, in connection with this most important subject. Notwithstanding the stringent Act passed in 1855, relating to articles of food, entitled, "The Nuisances Removal Act," large quantities of diseased meat find their way into consumption as human food, and will still find their way in a disguised form into the system of the poorer classes, until sanitary science brings practical experience in close unity with theory. With this object, I have endeavoured to make clear and simple the indications always present in the meat, and in the carcasses, by which any careful inspector may distinguish sound, healthy meat, from unsound and unwholesome flesh. If the meat was presented to the purchaser without any attempt at disguise, much

difficulty would be felt by the vendor in disposing of diseased meat; but, unfortunately, the bulk of diseased flesh is surreptitiously conveyed into manufactories where all kinds of minced goods are made up, such as German sausages, saveloys, pork and meat pies, brawn, and other delicacies, highly seasoned to cover all imperfections. In writing about minced goods, it would be exceedingly unfair to leave out the fact that there are many respectable tradesmen who are most particular, and who supervise all the meat which is manufactured into small goods at their establishments. I could enumerate the names of many of these men who make all savoury articles such as are mentioned of the very best meat, and to whom I would willingly send. I know of nothing so relishing as a pork sausage for one's breakfast in the winter time; but they must be like those spoken of by a judge from the judicial bench, "as very good, you know."

In the case of diseased meat, two characteristics are present,—either emaciation with wetness of the flesh, very pallid, and enlargement of the kidneys; or a red surface with dark, sticky flesh of a velvety appearance, and the kidneys very dark and congested.

The flesh of healthy animals presents a bright cherry colour, almost pink; the exterior of the carcass, described by the butcher as "the bark," showing a deep purplish red, with bloom resem-

bling that of a plum; the chest cavity and peritoneum clear and free from adhesion, with pink ribs; the fat firm, having creamy white biscuit or very pale straw colour; the flesh also having a marbly tracing of fat. When felt with the finger on the surface, it will be found to contain good juicy, nutritious qualities. In young carcasses there is a cartilaginous condition of the vertebræ and division of the pelvic or aitchbone; all the joints, when dissected, have a bluish tint or hue, the bones being porous; whereas, in the carcasses of old animals, the chine, or backbone, and pelvic bone are brittle, with an absence of cartilage; the flesh harsh and non-nutritious.

If the unhealthy appearances which I have indicated present themselves, then, in accordance with the Act of Parliament, "Nuisances Removal Act, 1855, for England," and the "Public Health Act of 1875,"* it has been wisely legislated that diseased meat shall not be sold for human food; therefore Medical Officers of Health and Sanitary Inspectors are plainly instructed as to their duties. When evidence is clearly presented of disease in the flesh, such meat must be seized. Great care should be taken that meat fit for food is not destroyed, it being an act of injustice, not only to the owner of such meat, but also to the public. In every case where inspections take place, judgment should be given after the carcass has

* See Appendix.

hung at least twelve hours; to give judgment alone upon an examination of the viscera and lungs would be exceedingly misleading, and in no way satisfactory as to fitness or otherwise of the flesh for human food.

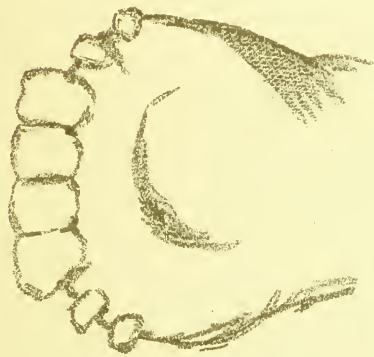
It is exceedingly important that every inspector of meat should be conversant with, and able to distinguish meat as to sex. With this object I have sketched the carcass of a ram and the half-section, by the side of half the carcass of a clean wether, so that it may be clearly seen, upon examination, which is ram mutton, and which wether or clean sheep. In the ram the distinctive characteristics are a thick neck or scrag, very muscular shoulders and thighs, the pizzle or genital organ twice as thick as an ordinary cedar pencil. While the clean wether sheep carcass presents a proportionate-sized neck or scrag, an absence of muscular development, a fine pizzle or genital organ, half the size of a tup or ram. If cut clean through, the flesh of a wether carcass will show a juicy condition, as against the coarser grain and dry condition of ram mutton. In many cases the urinary odour of ram mutton is distinct.

There are certain indications connected with the dentition of the ox which ought to be familiar to all inspectors. I have given a representation of the two-year-old to the six-year-old ox, after which age the teeth wear down, and, as time goes on, show the ravages of age. In the case of cows,

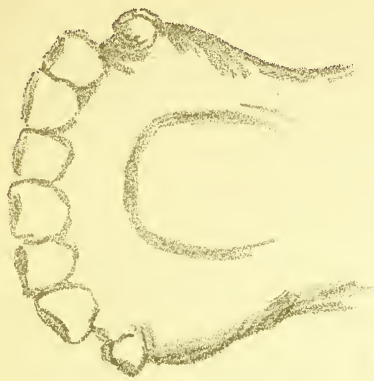
TWO YEARS.



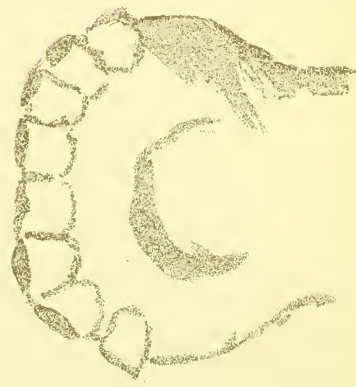
THREE YEARS.



FOUR YEARS.



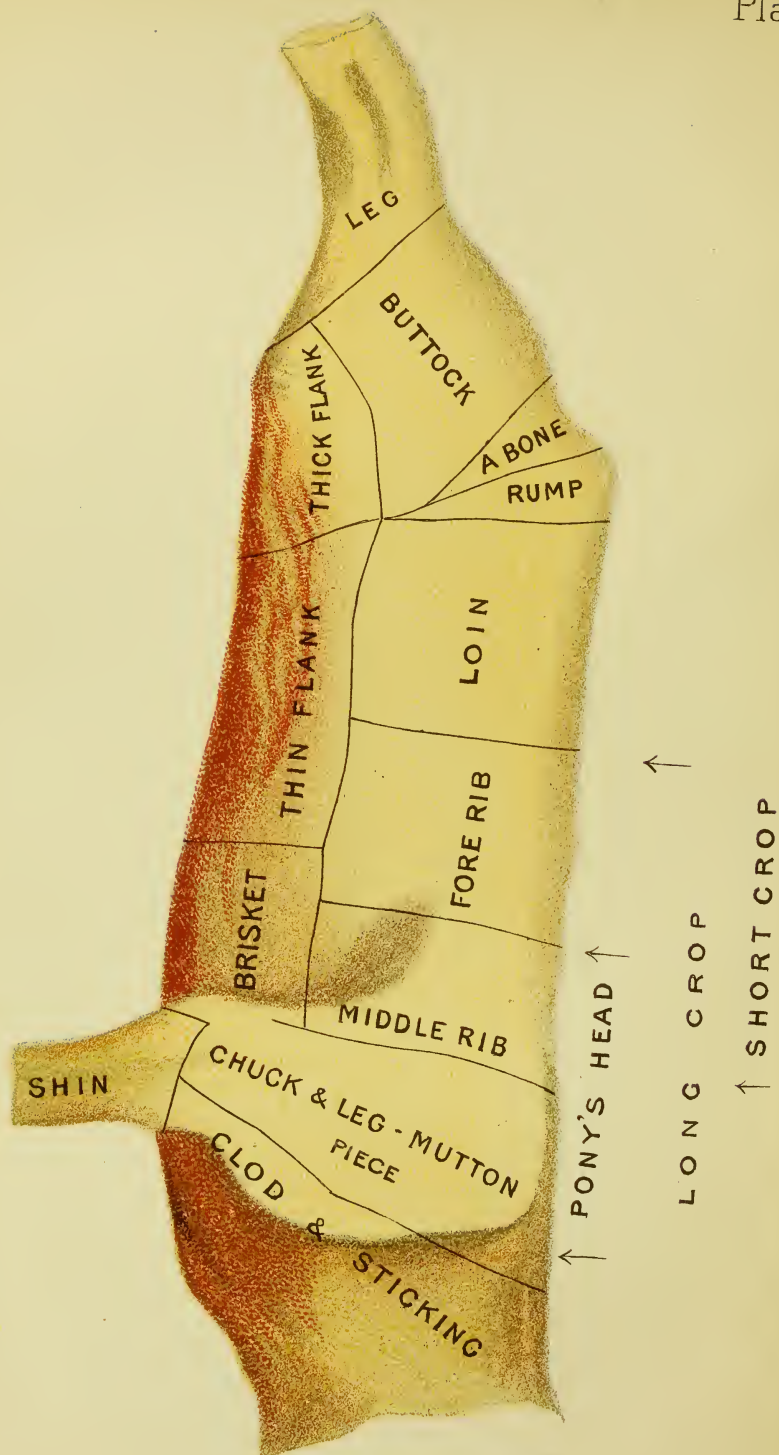
FIVE YEARS.



SIX YEARS.







it is next to an impossibility to state accurately the age by the mouth after seven years; for the guidance of inspectors, I consider it sufficient to give the age up to six years. Carcasses of oxen sent to the London markets rarely exceed five years old, many three, heifers between two and three. Carcasses of cows, age exceedingly doubtful; it is on record that cows have given birth up to twenty years of age; the carcasses of animals of this description, having done suit and service as dairy helpers, are so wretchedly thin, being frames only, that any inspector would have his attention drawn to them at once. It is in the well-fed animal, the one stricken down in the full habit of body, that his judgment will be taxed, and more care required in making close and careful examination.

I have put as plainly as possible a diagram of the ox, together with a side of beef, showing, by divisions and lines, certain joints, with the names appended, so that inspectors may become acquainted with the technical names as given by butchers, for I consider it very material that any person having to examine and inspect the premises belonging to a butcher should be able to meet him on his own terms, *i.e.* in his own parlance, respecting the several parts of the animal when dissected. It must necessarily conduce to the inspector's confidence in examining meat if he is well informed on this

point. I have also sketched the plates presented in this work representing various carcasses, showing sound meat as against unsound, in the hope that it will be helpful in clearly portraying actual disease; thus will be seen lung disease, parturition, accidental meat, and carcasses of animals that have wasted, also lungs healthy and diseased, likewise livers, kidneys, and various joints; all in my judgment essentially necessary for the uninitiated to study well.

Lung disease is so common that every butcher knows it. If of long standing, there is general emaciation, pallid appearance of the flesh, with wetness (infiltration of serum), enlargement of the kidneys, they being twice the ordinary or normal size. It is the custom of butchers to strip the lining membrane off the ribs, if adhesion has taken place, and in some instances to rub the parts with hot fat; this gives an unusual smeared condition to the pleura, and to some extent hides the inflammatory appearance which would otherwise be presented.

Upon the inspector, who has the carcass to judge from, seeing any appearance of stripping the ribs, or any adhesion upon the pleura, he should consider the meat unsound, and proceed to further inspect, when, if the tissues are wet, and the carcass shows signs of wasting, he may feel convinced that the disease is in the system, and pronounce the flesh unfit for human food. In

very old cows the lungs may be solidified, and the ribs showing no adhesion; but in these cases of chronic lung disease extreme wetness of the flesh, accompanied by an attenuated frame (at once noticeable by any one totally ignorant of diseased meat), and so disgusting to the sight that it would at once be pronounced unfit for human food. Many opinions are given by professional men as to the fitness or unfitness of meat (from animals suffering from pulmonary complaints) for human food. I consider that in all cases the meat should be judged after it has had an opportunity of setting, *i.e.* becoming firm.

Inflammation of the lungs in cattle is largely due to the want of proper consideration and attention on the part of dealers and owners of stock. I have frequently witnessed cows and stores out in the fields at night, with a bitter east wind prevailing, no shed or place of protection from the cold, and at railway-sidings, where the animals remain for hours in all weathers. What wonder, then, that many young animals succumb. It is pitiable in the extreme to see carcasses of in-calving cows, heifers, steers, now and then bulls, of the very best pedigree, consigned to market for sale, having been slaughtered under orders in accordance with the Contagious Diseases Animals Act. It will be exceedingly difficult to replace such stock. More care might be exercised with cattle on pasture-land, and in

transit, by providing properly covered shelters, to protect them from the inclemency and variability of our climate.

Much controversy is taking place at the present time respecting tuberculosis meat being fit or otherwise. This disease is as old as the hills, and called by the butchers "grapy," from the fact that clusters of tubercles adhere to the pleura and peritoneum resembling grapes; this is mostly seen in old cows.

In all cases of inspection judgment should not be given merely upon examination directly after slaughter. If the inspector is present when slaughtering takes place, and notices any symptoms of disease in the viscera or lungs, he should privately seal the carcass, and inspect the same after it has passed the hands of the butcher, and allowed to hang twelve hours, a sufficient time for meat to get firm, or otherwise; when, if any adhesion is present in the chest cavity or peritoneum (the lining or investing membrane of the intestines, called by butchers the "thin flank"), and the tissues of flesh wet, it is unsound and unfit for human consumption.

In cases where the inspector has not any opportunity of seeing the "viscera" and lungs of an animal, he can only judge of the flesh by careful examination, viz. to detect any odour, by probing or making an incision in the buttock, also as to the wet and flabby condition of the meat, or the dark and congested nature of it. Again, if the

kidneys are enlarged and heavy, or pendulous, not well covered with suet, and dark in colour, or if the peritoneum shows discoloration. In cows the carcass frequently presents this feature, especially in cases of parturition ; then, in addition, the pelvic cavity is distended and discoloured. Where these symptoms present themselves, they are signs of the unwholesome character of the meat, and it should be destroyed.

Old and worn-out cows are frequently killed, the carcasses dressed, and sent to the meat markets. Although no trace of disease can be pointed out, or appearance of disease shown, the carcasses present an emaciated condition, merely a covering of skin on the kidneys, the hip or round bone exceedingly prominent, the flesh dark and stringy, or wet and pallid, and the kidneys mostly large and heavy. These animals are described by the dealers and butchers as "old shooters," "cracklers," and "wasters." This dysenteric meat should not be allowed to be sold for human food ; all such animals are only fit for the kennel or zoological inmates.

Foot-and-mouth disease. Another form of malady attacking the bovine species. If in its early stage an animal has rest and good treatment, recovery is almost certain, or if slaughtered at once the flesh is not injurious. Where the joints have been affected, the carcass shows plainly by the peculiar whiteness at the joints, also a wetness

or exudation of serum, and likewise a wet condition of the neck, or sticking-place, the throat, and adjacent parts. In protracted cases, at times, will be found a loaded condition of the buttock, emitting, when open, a free discharge of matter exceedingly offensive. The meat from an animal in this condition I consider highly dangerous, and should at once be seized by the inspector. In the animal this disease is easily noticed by an examination of the tongue, which clearly shows sores on the side, extending from root to tip; also by the lameness, the beast being scarcely able to walk; in many instances the cattle conveyance or ambulance is required.

Parturition. In describing this class of meat, I am sorry to write that through gross ignorance many animals are lost. The owner of a cow marks the time when she should (according to his data) bring forth her young; if, precisely to his calendar, delivery does not take place, then he, or some other person he employs, thrust their rude hands into the vagina, thereby destroying the provision formed by Nature for the easy delivery. Then force is resorted to, and I have in many cases seen the pelvic bone fractured. In all cases of parturition, the inspector will see by the distension of the pelvic cavity, and the inflammatory appearance (see illustration), that the meat is unfit for human food.

Milk, or puerperal, fever is also common. The

flesh of animals dying from this form of disease, or those slaughtered when the disease exists, is easily detected, it being in all cases very dark in colour, and of a harsh, dry nature, all the surface of the carcass presenting discoloration, the blood-vessels gorged, especially prominent in the milk ducts. This meat is of a dangerous character, and should always be destroyed. As the veterinary surgeon is mostly called in to these cases, the flesh tells its own tale when probed. Or a better plan is to make an incision in the buttock above the pelvic bone, when any pungent odour will be detected. This class of meat differs from lung-diseased flesh by its being dry and sanguineous.

Rinderpest, or murrain—a terrible malady, fortunately of rare occurrence—is undoubtedly a fever. The characteristics of the flesh are as described in the preceding paragraph, with a total absence of meat juice, the whole of the external surface being of dull brick-red colour, and the peritoneum, or plate of belly (called by the butchers the “flank”), strongly marked with full veiny streaks.

This class of meat having the appearances described, should, together with the offal, be destroyed. Fortunately the country has not been visited with this disease since 1866, when some thousands of cattle were destroyed. At this date I was officially employed by Government as Cattle Plague Inspector. The blood of animals killed

when affected with cattle plague loses its albuminous properties, and is exceedingly dark in colour.

Albumen is extensively used at the present time; the mode adopted by the slaughter-men is to place a shallow tin close to the neck of the beast when stuck, allowing the blood to flow into the vessel, which is then emptied into galvanized pails (it is absolutely necessary that these tins and pails should be quite dry). The blood is taken from the slaughter-houses by the purifiers' men, and turned out on perforated tins, when coagulated; it is then cut to pieces, the receptacles being stacked one on the top of the other. By this means the albumen is obtained, passing through the several strainers until quite refined; it is afterwards baked in thin layers, when it resembles gelatine. The price paid per beast for the blood is about threepence; this is lost in the case of Jew slaughtering, consequent on the throat of the animal being cut crosswise, causing the blood to spurt and gush forth, bespattering the walls near to the place of slaughter. Nearly all the animals killed by the English butchers are stunned before being bled; the exception being sheep and lambs, and these have the spinal cord severed when being stuck. I fail to see why the Jews do not adopt the English method of stunning the beast.

METHOD OF SLAUGHTERING CATTLE ADOPTED BY
THE JEWS AT THE PRESENT TIME.

The beast is brought from the lairage to the slaughter-house, having a rope with a slip-noose round its neck, which is fastened to a ring fixed in a post close to the flooring; when this is made taut, the head being close to the ring, a second noose of chain is passed round the hock or hind shank, and drawn sharply to cause the creature to fall, or to be cast down easily by the butchers, on to its side; the leg fastening having been firmly secured, the head is twisted back to extreme tightness; then the Jew cutter appears on the scene, and, with a knife, the blade of which is about fifteen or sixteen inches in length, sharp as a finely set razor, severs the windpipe and principal arteries. The English butchers cut these again, consequent on their swelling and becoming partially closed, with the object of hastening the flow of blood.

I have noted that the time, from the cutting of the throat to the last throes of the dying animal, has been five minutes, making a difference of two minutes in favour of the English method in lessening the suffering.

THE METHOD OF ENGLISH SLAUGHTERING.

The beast is brought from the lairs or pens into the slaughter-house and made fast to a ring close to the ground by means of a rope attached to the horns. The slaughter-man strikes the animal in the forehead with an axe, called a "pole-axe," made like an ordinary punch, of good steel, which cuts clean to the brain, the beast falling to the ground stunned; then a cane, about three feet long, is thrust into the hole made by the pole-axe, this is called by the butcher "fidging." The moment the cane touches the spinal cord the creature is paralyzed. The butcher sticks the beast, severing all the principal veins and arteries, when the life blood rushes out. Time, three minutes. This is the most humane way of slaughter, and should be universally adopted.

Anthrax is a malignant disease affecting the tongue and adjacent parts. If the tongue of an animal suffering from this form of disease be examined, it will be found covered with ulcers of a virulent kind, which ends in mortification. The appearances of the carcass resemble the flesh of an animal having been suffocated, the throat and adjacent parts being dark and putrescent, and most revolting. This disease in the living animal is highly contagious, and is also dangerous to

man should he have any abrasion or cut on his hands, and any of the saliva adhere to them—quite as dangerous as glanders in the horse. All such meat from animals suffering with this disease should be buried with the offal in quicklime. I consider it impossible, unless in a disguised form, for this kind of meat to be sold for human food, so rapidly does decomposition set in, affecting the whole of the carcass, which emits a disgusting and overpowering odour.

Carcasses of animals accidentally killed comprise lightning-struck, drowned, suffocated in the holds of vessels or in railway-trucks, and apoplexy.

If lightning-struck, the flesh so rapidly decomposes that it is simplicity itself to detect from the olfactory organ alone. The same thing applies to apoplexy. In each case the animal is struck down in the full habit of body, and so rapidly does decomposition set in, before the butcher arrives on the scene, that discoloration of the lining membrane of the peritoneum and pleura takes place; the flesh has a pungent odour, and a dark colour, gorged with blood, and the whole of the exterior shows a deep red; this meat is highly dangerous, and should always, when found, be destroyed. All beasts that die from accident or natural causes are described by butchers as “croakers,” “soldiers,” possibly on account of the discoloration on the surface.

Carcasses of animals that die in the holds of

vessels, or in a railway-truck in transit, or those killed after they have been discovered down in a suffocating state, present a scarlet appearance, exteriorly with gorged veins, black condition of the flesh, having a velvety feel, with unpleasant odour; this is often accompanied with jaundice or ship-fever, which is easily known by the gamboge colour always present. When these symptoms present themselves, the inspector should seize and destroy the meat. It often happens that animals have a bad passage through stormy or adverse weather; then considerable bruising takes place.

This class of flesh can be dealt with by cutting clean down to the sound parts, and allowing those to be sold, the inspector taking care to seize and condemn all the bruised meat. So badly are some of these beasts knocked about by stormy weather at sea that frequently whole carcasses have to be destroyed on account of the bruised condition of the carcass, it being a mass of shattered bone and flesh.

In dealing with the subject of bruised meat, I would here place on record the fact that a much less proportion damaged in this way has to be dealt with at the present time, compared with that which was consigned to Newgate Market more than twenty years ago, from animals landed and killed at Harwich and Thames Haven. The carcasses of States beasts that are slaughtered at Birkenhead, Liverpool, and Deptford, consigned

to the London Central Meat Market, are exceptionally free in this respect, as may be witnessed any morning early. I have drawn attention to this feature when giving instructions to officers and gentlemen interested in this question, remarking upon the absence of any contusion or abrasion—all the characteristics present that are to be found in first-class meat. One other and very important point noticeable in American imported cattle, as shown by the carcasses, is the healthy condition of the cavity; I scarcely ever find any trace of pulmonary disease. Experts are puzzled in the attempt to distinguish many of these from those of our own home-bred and home-fed animals.

Choked animals, and those that are blown or hoven-hooved, are so easily detected by any one acquainted with the examination of carcasses that it is almost an impossibility to be mistaken on these points. The general appearance of the flesh of the animals that die from either of these causes would be a dull, "sleepy" condition, with strong odour of a nauseous character, discoloration of the peritoneum, blood-vessels gorged, external appearance of a red character, especially the side of the animals next the ground, or where it has lain. If the animals are slaughtered while suffering, although the flesh would be brighter, and of a cleaner colour, the flesh would be so pungent that this class of meat ought to be

destroyed. Probing above the pelvic or aitchbone, and at the chuck-rib, will give the inspector notice of the pungency of this meat.

Hip disease, and other local diseases, such as abscesses, tumours, enlargement of the joints, are all signs of the unhealthy condition of the flesh, which can be seen by the swelling of the parts so affected. This meat should be freely cut into by the inspector, so that he may have the opportunity of seeing the extent of such abscess or tumour. Animals lose one quarter entirely through a displacement of the hip; this does not necessarily cause the other three to be unsound; it would be a question of condition for the inspector to decide upon.

Cows suffer from cancerous jaw. So bad is this form of complaint that I consider it dangerous to human life should this class of meat be consumed; unfortunately, seldom does the inspector see the head of these animals; but as this kind of meat would give forth an unpleasant odour, inspectors should try for pungent smells by probing or cutting above pelvic bone, and between the second and third rib from the sticking, called the "chuck-rib," when all bad odours will be discovered.

The carcasses of animals having died from drowning present a soddened condition. Kidneys gorged, which have a sanguineous fluid discharge when cut through; the suet and peritoneum, or

lining membranes of the belly, show considerable discoloration, having a brilliant green colour. This meat has a dull pallid appearance, and decomposes rapidly. When felt it is soft and watery. The whole condition of the carcass and the joints when dissected may be at once seen and described as nasty, easily distinguished from firm, bright, healthy meat, and should be destroyed.

Meat from animals killed from off the drift, means that animals are often taken from fairs and market-places by drovers, driven possibly some miles to the butchers' premises, when, instead of lairage and rest being given before slaughtering, they are at once killed; under such circumstances the meat is harsh in character, wanting in that juicy characteristic noticeable in meat from animals that are properly rested before slaughter. No animal should be slaughtered directly after a journey, whether by land or sea, but should have at least a day to calm down, as they are in an excited, and, to some extent, fevered condition through leaving the grazing grounds of the several districts to which they were accustomed, and being driven upon macadamized roads, frequently parched with thirst, foot-sore, and goaded to their destination by the drovers, who are not all so thoughtful as they should be, and often hurry them to their destination without considering the difference between soft pasture-land and the hard paving of roads, scarcely, if ever, allow-

ing the poor animal time to drink, although it may have to travel some miles.

The carcasses of bulls sent to the London markets are mostly sound; they are, of course, subject to the same kind of diseases as all other of the bovine species. There have been instances in my experience where meat of the bull has been sent for sale affected by venereal taint; then the appearances are noticeable above the pelvic or aitchbone, where there are dark patches intermixed with serum of a disgusting character, emitting a strong nauseous odour; these patches extend to the exterior of the belly or thin flank, the whole of the carcass is blanched, a total absence of fat, with only a skin-covering to the kidneys, which are pendulous. Any inexperienced person would at once pronounce judgment against this class of meat.

Poorly fed bulls get so emaciated and wet in the flesh that the dealers describe them as "wet ones." When this condition is noticeable by the inspector, he should seize and destroy the meat, characterizing it as dysenteric.

Refrigerated American-killed meat is consigned to England from the States in immense shipments. The quality of the meat is unquestionably good, and is largely sold as prime Scotch beef. The secret now is known why such high prices were given for the best breed of English bulls, their progeny now being returned, refrigerated,

for distribution. The good points about American-killed refrigerated meat are, first, breed, principally Hereford, Norfolk, and Scotch; secondly, youth, as they are mostly between three and four years old; thirdly, they are well fed from their birth onwards, and well attended to. The distinguishing appearances of refrigerated meat as against English-killed meat are very striking; one, detrimental and unsightly, is the bruised, extravasated condition of the shank or leg, caused by hoisting the animal by rope or chain attached thereto preparatory to slaughter; this deteriorates the hind quarter considerably, and is invariably noticeable in American refrigerated meat. It can also be distinguished from English-killed by the stained condition of the fat, which gives rather a dull red appearance to the flesh, caused by absorption of the meat juice in transit. Consequent upon refrigeration, the carcasses, when exposed to atmospheric influences, change rapidly, and commence to emit unpleasant odours (called by the butchers "sweating"). This condition is most misleading to inspectors, it being superficial; where inspection of refrigerated beef takes place, and these conditions are present, the inspector should have the quarters or parts cut clean in two, when, if sweet, the outer surface may be removed by paring, or washing with a solution of salt and warm water, and the meat used. It happens at times, through mismanagement, or the breaking down of machinery,

that a mildew coating is on the surface of the meat, giving it the appearance of Stilton cheese; this, if the interior of the carcass is sweet, can be peeled or cut away.

Frozen beef is consigned from Australia and New Zealand. Though well fed and of fair average quality, it is not in favour with the butchers, consequent on the hard frozen condition of the meat causing so much liquid to drip when it is thawing, and the wet dark colour of the flesh having the appearance of being soaked in water. Proper inspection of this kind of meat is by having the quarters severed, as it often happens in the carcasses that putridity has commenced close to the round bone and pelvic bone, caused by the animal heat not having left the carcass before being frozen. This putrefaction cannot well be detected in the frozen condition without considerable boring, consequently the better plan as advised is for the inspector examining frozen beef to have both quarters, fore and hind, separated, when he will both see the discoloration and smell objectionable odour. This meat is not equal to American refrigerated beef in quality, and much of the nutrition is lost when thawing.

Horse-flesh is no doubt largely used, horses being exported for the purpose of being converted into delicacies and condensed beef-tea.

Being at the Guildhall Justice Room upon a prosecution by the Commissioners of Sewers,

against a farmer and a magistrate for sending diseased meat to London, the following story was told upon oath by a police-constable in a case of cruelty to two horses. He said, "I have made inquiries concerning the two defendants, one of whom purchased these horses; and the proprietor of the repository said the horses were not sold for the purpose of working; but if only lame and disabled, otherwise healthy, agents gave from two to three pounds each for exportation to Brussels and elsewhere, to be killed and used for beef-tea, sausages, etc."

Look at the anomaly, "lame and disabled!" It should have been added, "worn out," and ought to have been served the same as old worn-out cows, sent to the kennels. It is common talk concerning these swollen-jointed, incapacitated animals being exported, to be returned for Englishmen's food.

It is lamentable that horse-flesh should be allowed for sale as human food, being contrary and against common sense; for, if we consider the value of a horse for the purpose of locomotion, it will at once present itself to one's mind that unless diseased, or the animal happens to meet with an accident, the horse would not be killed. So much for the monetary part of the affair. With regard to disease, the horse is subject to many of the diseases which attack the bovine, with the addition that glanders, the most dangerous form of

disease, is peculiarly belonging to the horse. It has been wisely put forth in a bill passed by Parliament that any vendor of horse-flesh shall legibly paint in large letters, over the establishment that he trades in this food, and it would be well that such a trader should be compelled to give notice to the authority or authorities that he has horse-flesh on his premises of a doubtful character as to soundness. I think if this is strictly enforced, very little horse-flesh will be purchased in England for human food.

Horses in a sound, healthy condition, well nourished, are of more value, almost double, to an ox of the same weight; therefore, as a paying concern, trading in sound horses for human food would not last. I, for one, would prefer eating old cow beef to horse-flesh. Unfortunately, a very large trade is done in minced articles by the manufacturers of these goods, who use horse-flesh, called in this mysterious trade by the name of "Jack." Inspectors should be sharp on this class of trader, and ought to be well supported by the Medical Officers of Health in putting a stop to this abominable practice.

The carcass of the horse differs from the bovine in the greater number of ribs, a covering of oily fat on the peritoneum, the smoothness of the tongue, the formation of the kidneys, the heaviness of the leg and thigh bones, the absence of marrow, the stringy black condition of the flesh, the non-

mixture of the fat with the lean, and the rank odour, peculiarly horsy. There are thirty-six ribs in the horse, in the ox twenty-six.

The fat covering the peritoneum (or lining membrane of the belly) in the horse is formed like the flea, or flare, on the peritoneum of the pig; in the bovine this is not so. The tongue of the horse is smooth at tip and base of blade; in the ox it is rough. The kidney of the horse is round, lumpy, and marked by four or five lines; in the ox it is elongated, and has blocks or segments. In the horse, the buttock or round bone, when divided, exhibits an oily fat; in the ox, solid or firm marrow will be found. The bones of shoulders and thighs of the horse are heavier than those of the ox. The whole of the fat of the horse is oily, separated, apart from the lean.

The flesh is of a dark, sanguineous character, coarse in fibre, the fluid of which is so objectionable to those who use it that they resort to the practice of salting the meat to extract the sanguineous fluid, afterwards washing and draining upon strainers before they can manufacture it into delicacies for the table. Considering that the horse, if he can perform night work in the shafts of a cab, is worth more than a heavier weight of cow beef, it is tolerably apparent that sound, healthy horses will not be slaughtered for sale as human food. It is a remarkable fact that I have looked for and asked the vendors of cats'-

meat for a horse's tongue, but have failed to discover one. What becomes of them? Seeing that good American refrigerated beef can be purchased from fivepence to sixpence a pound, and that briskets, clods, and stickings, from good English ox beef can be bought at threepence to fourpence, I fail to see why horse-flesh, if quite sound, should be purchased for food.

Meat is a very ready absorbent, therefore it has occurred when in transit that cloths used in packing or covering have transmitted peculiar odours to it, penetrating to every part of the carcass. Petroleum cloths will infect the meat; vitriol or other pungent oils making the meat totally unfit for human food; and it is an impossibility for any person, however desirous he might be, to dispose of the flesh after it is impregnated with any of these obnoxious liquids. An officer's attention would be at once drawn to this condition of things. It is mostly a case for railway companies or carriers to compensate for loss, they invariably being answerable for the damage.

As offals are largely sold in low neighbourhoods to the very poor classes, and who are most likely, from their want of stamina, to suffer from unwholesome food, great care should be exercised in judging livers, lungs, kidneys, spleens or milts, tripe, heads, and hearts. With the object of simplifying the work of inspection, I have sketched healthy lungs, etc., against unhealthy ones, in the

hope that they may be helpful. In the case of the sheep and ox livers, the inspector may observe, when the livers are on the boards of the vendor, and are cut through, whether flukes are in the livers, or if they are free, for they will abound in hundreds in one liver (for knowledge of this parasite see illustration, also of the other drawings relating to offal generally). The lungs and livers of animals are used by the pork-butchers in manufacturing "faggots," called "German ducks." When mixed with sage and onions they are made into squares, rounded at the top, and baked; poor people purchase these at one penny each, gravy is included. Livers are also largely used in the manufacture of ketchup. *Pigs' livers* are mostly sold for this purpose; they are packed in tierces or barrels, a layer of salt being placed on each packing of livers; this causes a dark liquor to flow from them, which is the principal ingredient. Offals particularly should be free from tubercles; where these are noticeable, the inspector should at once seize and destroy.

Calves are less subject to lung disease than more mature animals, although not entirely free; the same conditions are present, viz. adhesion of the pleura, often extending to the diaphragm. When any symptoms are observed of inflammatory action having gone on in the calf, the inspector should always test the carcasses for unpleasant smell (as the aid of the veterinary surgeon or the

owner, who would physic the animal, is generally resorted to before the butcher appears on the scene). Then in such a case would be discovered, on the application of a wooden skewer, or an incision made with a knife above the pelvic bone, or at the second rib from the throat, a powerful odour in the flesh; when this is present, the meat should be condemned as unfit for human food.

The flesh of calves often exhibits a dull sleepy appearance; this arises from exposure of the animal to cold, or to its being kept from food for too long a time, producing a faintness, oftentimes causing death. Through careless tying to stalls they often get strangled; if not found until the morning, the flesh shows such marked signs externally and internally that no mistake can arise on this point. Decomposition rapidly takes place, the kidney fat plainly indicating death from other causes than the aid of the butcher; this same condition of the flesh is seen when the animal has been improperly or unskilfully castrated.

Scours, or diarrhœa, is a complaint common with calves; if it continues, the whole condition of the animal is soon changed to extreme emaciation. Carcasses of calves having suffered from this disease present considerable wetness of the tissues, much discoloration in chest cavity and lining of belly, or peritoneum, kidneys pendulant, a total absence of fat, a soft, flabby condition of the meat, which does not set. Generally medical

treatment is resorted to on these young animals; consequently, there is mostly found a strong, unpleasant odour, which may be easily detected by probing the flesh. As before advised, carcasses having these characteristics should be condemned.

Carcasses of juvenile calves are imported to this country from Holland, and the West of England supply large numbers; they are slaughtered when one or two weeks old. This immature meat is bought principally by "choppers," and is pleasantly described as "bobbies." Though free from disease, there cannot possibly be any nutrition in this class of meat. It would be a benefit if the slaughtering of such young animals was prohibited, so that they might develop into good substantial oxen, serving good food that would be beneficial to the consumer.

It is a remarkable fact that people will, in the season of the year, buy this kind of meat, and, still more remarkable, declare they enjoy it; certain it is that thousands of these carcasses are consigned to London, Leeds, Manchester, and other towns for food.

Inspectors, when describing this immature flesh, must not confound "slink" with the name of "bobby,"—slink being a term solely applicable to the unborn calf. Calves less than three weeks old should not be killed for human food.

Quarter-evil is a very malignant form of disease attacking calves, fatal in its character.

The carcass of a calf having suffered from this disease shows plainly a swollen, dark discoloration on the exterior of the fore quarters. Upon the shoulders being removed, they will be spongy, gorged with a sanguineous, putrescent fluid, most disgusting in appearance and smell; the whole of the flesh is in a wet, sleepy condition, the cavity of chest and belly much inflamed. This class of meat is highly dangerous, and should, when discovered, be unhesitatingly destroyed. When inspectors see marked discoloration on the surface of any carcass, they should have it severed or cut in such a manner as to enable them to see clearly the flesh, which will materially help them in judging of its unsound and unwholesome character.

Carcasses of sheep present indications of lung disease, similar to the ox and cow, by the adhesion on the pleura, which is always present when the animal has suffered from acute inflammation of the lungs. The butcher mostly is clever enough to strip the part affected, by cutting clean away the diaphragm and pleura; sometimes he will supplement this by rubbing the diseased parts with hot fat, as before observed, in the case of lung disease in cows. As this gives it an unnatural appearance, the inspector will at once see that some disturbance has taken place. If the animal has been affected some time, a wasting of the flesh commences, a wetness of the tissues goes on, dropsy supervenes, and extreme emaciation, ending

in death. In the case of sheep affected by lung disease, the shoulders do not set after slaughter firmly, as in the case of healthy mutton. Where lung disease is pronounced in the carcass, the meat should unhesitatingly be destroyed. Examples of lung-diseased meat are placed in this book, showing adhesion before the artistic work of the butcher has been executed.

Fluke disease is easily detected in the carcass of a sheep by the extraordinary whiteness shown externally, the bark, or outer covering, being blanched, as compared with the red, plum colour of a healthy carcass. In the early stage, the meat from an animal having fluke disease may be safely eaten, and the inspector would be justified in passing such meat. If of any standing, the animal wastes rapidly, and a dropsical condition sets in; then the carcass, in addition to the condition above described, shows extreme emaciation; and wetness of the kidneys, the covering of which will be of a loose, soft character, instead of being hard and firm, always found in healthy animals. There ought to be no difficulty in at once detecting fluke-diseased meat of the character here described.

Sheep are often "cast" in the field, happening mostly to fine, fat stock; the animal gets on its back and, struggle as much as it may, it cannot get on its feet; consequently, if aid is not at hand, the sheep dies from suffocation. Should the intestines remain in the carcass, and the vessels

become gorged, decomposition sets in rapidly; appearances after the dressing being clearly visible, especially on the kidney fat and peritoneum, or lining membrane of the belly; in this case the meat should be destroyed. External discoloration is always present, as in the case of animals dying a natural death.

Sheep are frequently drowned, especially on fenny land where dykes abound. The appearances of the carcass present the usual characteristics found in drowned meat, viz. a soddened state of the flesh, great discoloration externally, kidney fat mostly green, peritoneum strongly marked. This kind of meat decomposes very rapidly, and is very easy of detection, the liver and lungs extensively gorged, the kidneys have a sanguineous appearance, so distinctive from healthy ones that any inspector should be able to see the difference. This meat should not be allowed to be sold for human food.

At the season of the year, February, lambing-time, a great number of ewes are lost from parturition; the same gross ignorance exists as in the case of cows calving. The shepherd sets his judgment against nature, that is, if according to his knowledge the ewe does not bring forth her lamb or lambs, he resorts to force, and frequently lacerates the delicate organs so severely that the poor animal bleeds to death. I cannot speak too strongly against the ignorance that prevails up

to this present date (1890), with regard to animals about to bring forth their young; instead of allowing nature to perform her work, they destroy the very efforts and properties she has provided for delivery. In most cases inflammation is set up in the injured parts; the inflammatory condition of the peritoneum may be seen by the streaky blood-veins, commencing from the pelvic cavity downwards to the diaphragm; sometimes so much force is used to get the lamb or lambs from the mother, as in the case of the carcasses of cows, that I have seen the pelvis completely shattered, and upon examination have found it necessary to destroy the carcass.

Sheep frequently suffer from rupture, or what the butcher describes as "broken-bellied." Also scab, which is local, and may be treated by the inspector according to degrees of injury; that is, upon examination of the carcass, in the case of rupture, will be seen a thickly coated substance on the peritoneum, or lining membrane of the belly, sometimes affecting the hind quarter; this should be cut away clean down to the healthy parts; those left being allowed to be sold for human food, always providing the animal has been well nourished and in good condition. In the case of scab, the skin or hide adheres to the back of the animal when slaughtered; it can be seen by a large indentation. If the part affected is cut clean away, the meat may be sold, providing the animal has not wasted.

Heavy shipments of frozen carcasses of mutton are consigned from New Zealand, Wellington, and Hawkes Bay, also from Rockhampton, Queensland, and from Sydney, Australia, to the London markets. This meat is of good quality, consequent on crossing the breeds with English stock, many of them being equal to the best Downs or half-breeds. They are exceedingly free from disease, and well suited for contract purposes. When an inspector has to examine these carcasses, the principal feature he will have to guard against is the condition as to sweetness; as in the case of frozen beef, it frequently occurs in the carcasses of frozen sheep and lambs that the animal heat has not left the body before freezing. Consequently putrefaction commences mostly in the pelvic cavity; therefore it is advisable he should, before receiving these for ration purposes, have the carcasses divided in two halves; then he will detect by sight and smell the parts affected, and can reject the whole of the carcass, or have the unsound parts cut away clean down to the sweet portions. In the case of condemnation, the inspector should seize only those joints which are unfit for human food.

Frozen carcasses of mutton and lamb are frequently dotted over the surface with dark spots of mildew; these are, in most cases, superficial, and do not penetrate to the fat. This can be easily pared, and is not detrimental to the flesh. Where dark patches are visible, the carcasses should be

well examined, as these patches are caused by decomposition having commenced, and the meat being frozen hard again, which causes extra trouble in making examinations. The best method is to have each carcass separated and hung up, so that a good view may be obtained of the cavity; then will be seen (notwithstanding the frozen condition) discoloration on the ribs, extending to the pelvic cavity. When these conditions are present, the carcasses should be condemned.

Dry-rot is a disease affecting sheep. The carcasses of animals having suffered from this form of disease exhibit a marked contrast to those having suffered from fluke complaint by the unusual dry appearance of the carcass, the black condition of the flesh when cut, and the extraordinary wasting of the animal.

In all cases of dry-rot the carcass, when quartered, will show this extreme wasted condition, the flesh of the loin, or "chop," being narrow, the muscles attenuated; legs and shoulders particularly so.

All these carcasses should be condemned by the inspector.

"Rickets," or rheumatism, affect sheep. This will be noticeable by the enlargement of the leg and shoulder at the knuckle-joints, the animals often going about on their knees, which prevents them from properly feeding, and causes them to lose flesh. This, together with the enlarged joints,

can at once be detected, and should be judged by degree of condition. Where there is extreme emaciation and exudation of serum from the joints and adjacent parts, such meat undoubtedly should be condemned and destroyed.

Lambs also suffer from this form of complaint, and must be judged the same as the carcasses of sheep. Giddiness frequently attacks lambs, which brings about a wet, poor state of the flesh, not at all dangerous, but should be judged by condition of carcass.

Carcasses of goats are sometimes sent to market dressed in the same manner as carcasses of sheep and lambs; they are invariably free from disease, the flesh is dark, almost black, harsh and strong, in smell exceedingly "goaty." The shanks of the legs and shoulders are very small, the plates of belly dark, ribs white, outer coating of carcass deep red, neck long and thin in the carcass of a "nannie," or female; very thick and muscular in that of a "billy," or male goat. If in a thin, poor condition, goat's flesh is not fit for human food. If used for food, they should be thoroughly fed for the purpose, well nourished, having the kidneys covered with good solid suet. There is a practice adopted by butchers who dress these animals of stuffing the skinny coverings of poor goat's kidneys with sheep's caul-fat, as much as three quarters of a pound weight in each kidney covering; this may be discovered by turning the kidneys the

reverse way. Butchers of a low type visit country fairs and markets purchasing goats, which they slaughter and dress in the same way that lambs are dressed for market, coating them inside and outside with warm fat, taken mostly from good carcasses of mutton. These goats' carcasses are cut in quarters and joints, which are sold to seekers after cheap meat for lamb. Of course butchers would not themselves be taken in by this class of meat, for the difference is so palpable. With the object of giving some idea of a goat's carcass, I have placed a sketch, taken at the market, of one plainly dressed.

The carcasses of boar-pigs are sold of a very coarse character indeed, mostly used in the manufacture of minced goods; they are easily distinguished from those of "barren," or sow-pigs, by the strong root of the genital organ, always left by the butcher, which is seen when the pelvis is divided, close to the rectum. It may also be distinguished by the dark character of the flesh mostly present; but in all cases where the animal is matured will be seen externally on the shoulders a shield or thick layer of rind, very hard to cut with the knife, having the appearance of fat, but actually horny in its nature, quite differing from the other parts of the outer covering, which is called "back fat." As in most cases this boar-meat is sold to the poorer classes, the vendor should be compelled to cut the shield or horny substance

away from the meat, for, though not injurious, it is a gross fraud, it being impossible, without a day's stewing, to get it soft. In some cases the meat of boars will have a strong odour of urine; though this is objectionable, if the carcass is well nourished, it could not alone cause it to be considered unfit for food. If thin, and the flesh wet, it should be destroyed.

Pigs have nearly all the diseases nameable, therefore carcasses should be most carefully inspected, especially in the case of the common lung complaint. As I have pointed out, this can always be seen by an examination of the pleura or lining membrane of the chest cavity, and, whenever so seen, the meat should be destroyed. I consider swine's flesh should, of all meat, be quite free from disease; however slightly affected, it is most unwholesome, even injurious. In all cases of lung disease in animals, the butcher has to forcibly remove the lungs; whereas, in the case of healthy animals, they fall out as soon as the connecting partition, the diaphragm, is separated; where the cutting away the lungs is resorted to, there will be a tearing of the pleura, noticeable on the ribs.

Measles in pigs, a disease common to Hungarian and Irish bred animals. It can be distinguished when the pig is alive by an examination of the tongue, where the capsule may be seen. After death, however slightly the animal may have been affected, the spot can be found inside the brisket-

bone, close to the pericardium, or heart-fat. When an incision is made, numerous cysts are seen in the flesh, each containing a white pip, resembling the seed of a ripe tomato; so numerous are these in some cases that the flesh is quite covered. In no instance have the measles been seen in the fat of the pig, and most singular that it is found to have existed in the best fed and fattest pig in the whole herd. Nothing is presentable from the exterior of the carcass, all indications are in the tissues and flesh. This meat is highly dangerous. However slightly affected, all carcasses of pigs having suffered from measles should be destroyed.

Diarrhœa is very prevalent amongst young store pigs, as in the case of calves. This is easily detected, upon the examination of the carcasses, by their attenuated condition, also wetness of the flesh, and the absence of all the characteristics exhibited in healthy carcasses.

Cramp is another complaint which soon brings death in its train. The carcasses have much the same appearance as the above, with this addition, that the foot and knuckle joints present a sanguineous condition when separated by the knife. I hold with destroying all this kind of flesh as unfit for human food.

Local diseases, such as tumours, boils, and abscesses, will be frequently found in pork, and, wherever seen, the carcass should be destroyed. Fever in the feet will cause the hoofs or claws to

come off; the feet become swollen and velvety; the joints fester, and there is a thick discharge. In old boar-pigs this is frequent; but, as it can be easily detected with the naked eyes, I need not enlarge upon the condition, but simply repeat that all swine flesh not perfectly healthy should be destroyed. Any Medical Officer of Health would support his sanitary inspector in this.

Fever in pigs is noticeable after death, either by the scarlet appearance of the outer skin, or a black condition of it. Sometimes, instead of the whole exterior being red or black, spots will be present of the same hues. In all cases there will be seen a wasting condition of the carcass; the inside covering of the belly being thin, and having a shrivelled appearance. This is often caused by the animal having had coarse food, which it could not digest. Pig dealers all over the country try "forcing" young stores too much, and so bring about fever. Where the above symptoms are developed, the carcasses should be destroyed.

Pork is often tainted with a strong odour of fish, mostly found in Scotch pigs' carcasses. This can be seen of a yellowish tinge in the fat; and if the inspector should take a small piece of the fat, or "flea," called by the trade "flare," in his hands, and rub them sharply together, he will, by placing it quickly to his nose, detect the odour; or place a small piece in front of the fire, when it

will give convincing proof of its fishy nature. It is so nauseous when cooked that I consider it ought not to be sold for human food, but should be seized. I have had instances of people bringing cooked pieces of pork to my office, who have informed me that they have vomited freely when trying to eat a piece of "fishy pork." It also impregnates all the vegetables that may have been cooked with it.

In poultry inspection it will be seen that fowls are liable to tumours and abscesses, which are mostly on the surface, and can be easily detected. Also turkeys and geese. In these, as in fowls, great attenuation exists from the creatures being improperly fed. Where this is seen, the inspector should condemn.

In cases of putridity, Ostend rabbits, game, and all kinds of poultry, the carcasses speak for themselves, so that it is simplicity itself, when an inspector uses his olfactory organ, to detect the unpleasant odour as well as the green appearance, and so be guided to the proper course—that is, seize and destroy.

In cases of inspecting venison, or game, some care is needed, because there are persons who prefer what they are pleased to call "high" game; but I wish to point out that there is all the difference between "high" game and putrid game. Take venison, if a bright green, and puffy, that is quite unfit for human food; if dry, dark, and free from discoloration, *i.e.* green, then it is fit for

food. Also in the case of pheasants, hares, partridges, and all birds, if wet and green at the back, they are not fit for human food; on the contrary, if free from greenness at the back, and fairly dry, they are, although high, quite fit for food. As it is a matter of taste, many persons preferring game "high" to game "fresh," care should be taken to distinguish the condition by what I have described as the "brilliant green colour," and the "dry, dark colour."

The would-be sellers of putrid game, poultry, and meat, resort to the practice of concealment by rubbing the green parts with fresh blood obtained from the neck of a fowl, or bruised flesh, then covering the sanguinary painting with flour, called, "Madame Racheling." This is exceedingly tricky, and, when discovered, the vendors of such stuff, as in the case of diseased meat, should be prosecuted, the goods being seized and destroyed.

Salted meats, comprising beef, pork, ham, tongues, bacon, and Bath chaps, should be tried by probing with a trier, or wooden skewer, when, if tainted, they may easily be detected. In examining hams, they should be probed at the knuckle, and above the pelvic bone, or aitchbone; tongues should be tried at the base of the blade; bacon at the rib-bones, and neck, or shoulder part; Bath chaps at the thick part of jole. In all cases, the trier should be quickly drawn and applied to

the olfactory organ. The fat of hams and bacon should be firm and white; the flesh free from holes. If the fat is streaked close to the rind, with a pinky colour, it is not good, sound meat. Should *numerous* small holes appear in the flesh of hams or bacon, it might be from measly pigs, and should be carefully inspected, so that no mistake may arise, as sometimes, through forcing, small holes are made in salted pork; these are very different to the "pip," or ova, of measles.

Tinned, or canned, meat requires careful attention. This is simple, so far as testing for decomposition. If the inspector notices any of the tins containing meat convex, he should further examine, when invariably will be found putrefaction; these are described as "blown" tins. In all cases of sweet canned meat the tins are concave. It is essential that this class of meat should be quite free from taint, several instances having occurred where whole families have been made seriously ill by partaking of tinned meat which, I have no doubt, was partially decomposed. It would be exceedingly puzzling to pronounce an opinion as to the quality of the contents of these tinned goods, the meat being in small pieces, and cooked.

There is this danger in respect to all kinds of affected meat, whether from diseased animals or those accidentally killed: it may be used in a disguised form by unscrupulous traders.

Putrid meat. Meat tainted by the weather is so easily detected, both by sight and smell, that it is almost unnecessary to say anything in connection with it, as every housewife should be able to distinguish it. The only point to guard against is the attempt on the part of the butcher to disguise the appearance, by artistically painting the affected portions with fresh blood. But it is very important that inspectors receiving carcasses of animals imported from the United States, slaughtered at Bristol, Birkenhead, Deptford, and other depôts, should carefully examine the meat, as it frequently occurs, through the ripe condition of the animal, and the excitement caused by the sea-passage, that putrefaction is set up before the heat has left. As a large proportion of Liverpool-American beef is used as contract-meat, testings should be made, as repeatedly advised, by probing above the pelvic bone at the side of round, or thigh-bone, and at the chuck-rib above the sticking, which will give forth any unpleasant odour that may exist. Although this meat looks quite fresh, it is at these places that decomposition commences soon after slaughter.

Frozen mutton is also consigned from Buenos Ayres, River Plate. It is unlike the New Zealand and Australian, inasmuch as the English breed has not yet been introduced sufficiently, consequently the carcasses are small in comparison; no doubt they will be much improved. At present

they are not suitable for contracts, lacking substance and quality.

To show how regardless of the effect on human life, and what rascals there are who would consign diseased meat for sale, I will relate a circumstance that occurred some eighteen or twenty years ago. The inspector in charge at Leadenhall Market sent a message that he wished me to go and inspect the contents of a hamper that had been sent to the market for sale. Upon my arrival I was shown a potato-hamper containing a number of dead carcasses. On examining them I saw portions of wool on the hind and fore shanks; this, with other appearances, convinced me they were unborn lambs; they were slimy and revolting, in number thirty, dressed like Ostend rabbits. I afterwards found that an Irishman (this consignment came from Ireland) had collected the offal at different slaughter-houses, amongst which he received these wretched things, and had them dressed and sent to market; fortunately they were detected and destroyed.

Another case which came under my notice of the reckless manner of the low-class butcher, occurred at Dunstable, Bedfordshire, where a man actually killed a retriever dog and dressed it as a lamb, which he sold in the neighbourhood. The superintendent who acquainted me with the particulars told me it was only by the fact of discovering the dog's skin that inquiries were

instituted, resulting in the summoning of the offender before the magistrate, who very properly sent him to durance vile for three months.

The next case of cupidity and rascality was detected in the Central Meat Market. My coadjutor requested me to inspect two hind quarters of an animal which had been consigned to a salesman for sale, dressed as meat is usually dressed for human food. Upon making an examination of the meat, I said, "These are portions of a jackass." There was a great commotion in the market, and many remonstrated with me, and said, "they were parts of a home-fed deer." To prevent any unpleasantness, and to avoid a crowd congregating and impeding business, I suggested to my colleague that he should wire to Leicester. - He did so, with the result that a message came stating that portions of a donkey's carcass had been consigned by a butcher residing there, the windows of whose premises the public were demolishing. The man with his family fled, and took passage to America before a summons, which was issued, could be served. The facts as obtained disclosed a shocking case of cruelty. This man had taken his donkey to the races; it met with an accident—broke its leg; in this condition it was made to go on three legs some distance home, where it was killed.

One other case of exceedingly low cunning occurred at Halesworth, Suffolk, where I had occasion to go and make inquiries respecting the

sending of a wretchedly emaciated and wet carcass of a cow to London for sale. The animal had been ailing for some time, and was sold by the owner for fifteen shillings to a dealer for cats' meat, who afterwards sold it to the butcher for twenty-five shillings. He, with the object of making his story appear true, broke the poor creature's jaw with a hammer, and this was his note to the salesman: "I have sent you the carcass of a cow she met with misfortune and broke her jaw-bone." This man met with his proper punishment; he was afterwards convicted and sentenced to three months' imprisonment. I might relate numerous instances of the tricks resorted to with the idea of deceiving the authorities by the senders of unwholesome food; but I will confine myself to these four as being sufficient to convey to the reader how base these men are, and how utterly regardless of the consequences that might ensue from the consumption of diseased flesh.

DESCRIPTION OF PLATES.

Plates I. and II.—I have endeavoured, by sketching the ox and a side of beef, to make plain, for the guidance of the inspector, the different joints as cut and sold by the London butcher, numbering them so that a ready knowledge may be obtained, and the proper names given, as called by them; thus will be seen twelve joints on one side. If the “clod,” No. 1, is separated from the “sticking,” one other joint is obtained; also with regard to the “chuck,” which is separated from the “leg-of-mutton piece.” The buttock is divided, and is described as top and bottom side, *i.e.* “silverside” (mostly salted). The “rump” is also separated from the “sirloin;” this brings the number to sixteen. The chuck and leg-of-mutton piece, and middle rib together, the butcher describes as the “horse’s,” or “pony’s head.” Why, it is impossible to say, for it is not at all like either. The chuck and leg-of-mutton piece, middle rib and fore rib together, are described as the “long crop.” Without the chuck and leg-of-mutton piece it is called a “short crop” (see arrows). Total number of joints in the carcass of beef are thirty-two. The “baron” of beef consists of the two rumps, two loins, and two aitch-bones (or. pelvis) not divided.

[Plate III. is described on p. 4.]

Plate IV. represents the carcasses of two sheep in an extremely emaciated condition ; it may be seen that the bark, or outer covering, is pale, of an unhealthy hue, and the joints of shanks enlarged. The object in putting this plate in the book is to show this class of meat in contrast to illustration of "mackerel-backed" carcasses, so that an inspector may at a glance distinguish unsound from sound carcasses of mutton. Although no sign of lung disease appeared in either of the carcasses, the animals had been wasting for some considerable time, and may be classed as dysenteric meat ; the wonder is that animals live so long in this state. It is really a pity the Society for the Prevention of Cruelty to Animals is not made acquainted with the fact that these poor creatures are allowed to linger in pain, and so enable the law to be put in force against the unfeeling owners.

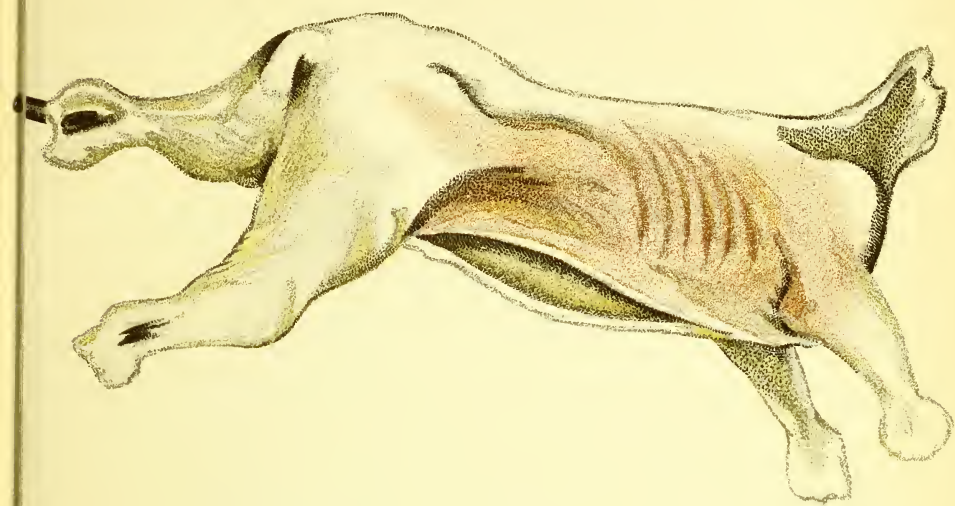
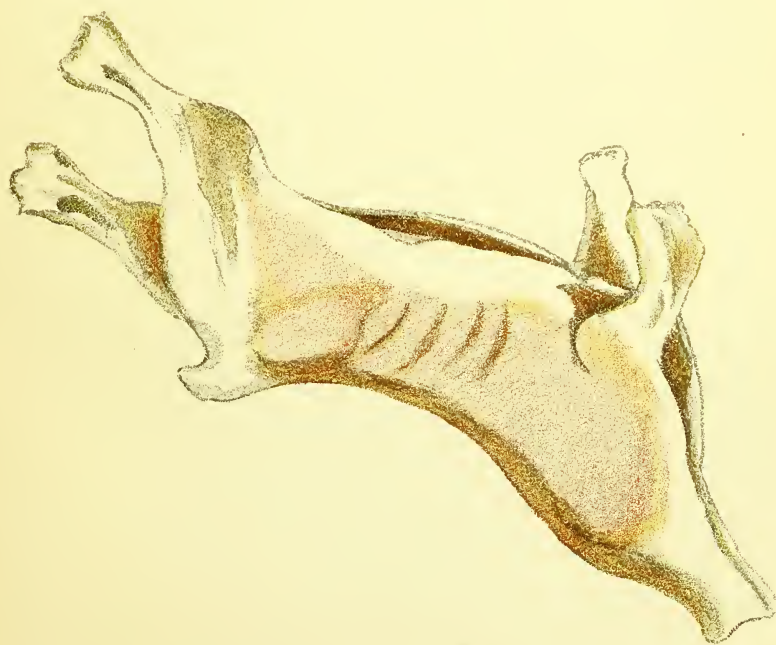
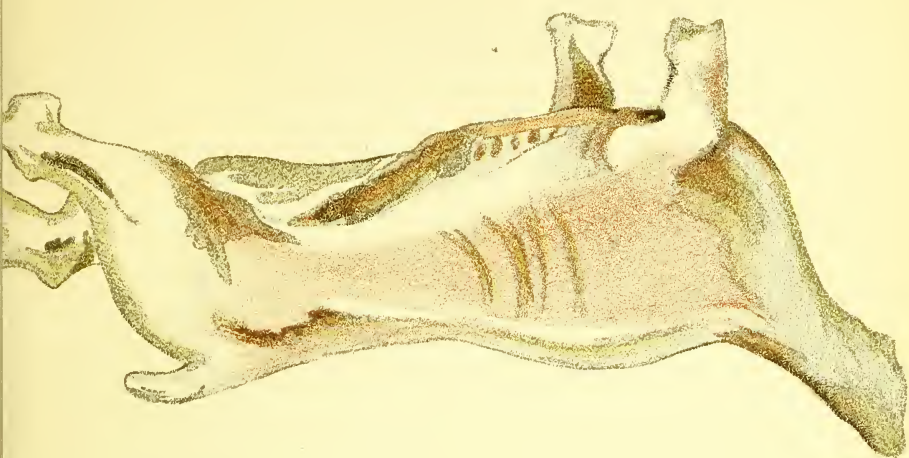


Plate V. represents the carcass of a goat, a nanny, or female. It is distinguishable from the carcass of a sheep by the deep dark colour of the back, or outer surface; by the long thin leg and shoulder shanks, and the elongated neck. It is the carcass of an old animal, as seen by the blanché appearance of the ribs. A description of goat's flesh is given in this book. Also an illustration of the carcass of a pig, sketched at the market, showing how attenuated they become when suffering from scours or continued diarrhœa. The head of this particular animal was large enough for one twice its size; how it could possibly live to become the wretched object it presented was to me astonishing. It is not likely that any inspector, however wanting in knowledge, would pass an object such as this.



Plate VI. is a sketch taken at the London Central Meat Market of the carcasses of two lambs that had suffered considerably from swollen joints; intense must have been the pain to cause the carcasses to become so emaciated and the flesh wet. It is remarkable that owners of sheep and lambs allow the poor animals to go about day by day, wasting and in suffering, instead of calling in the butcher, and having them killed before they get thin, thereby saving an immense amount of pain to the animals, and themselves loss. Possibly, if one or two were fined for cruelty, they would wake up to the fact that it would be better to kill in the early stage. Rarely do these poor things recover, but go from bad to worse, until relieved by death.



Plates VII. and VIII. are the drawings of kidneys, placed in this book for the purpose of contrasting the difference in shape between the horse's kidney and that of the bovine. In the event of inspectors visiting any establishment where horse-flesh is being used, it might be exceedingly advantageous (should a hind quarter be deposited in the manufactory having a kidney) in proving that such flesh was being prepared for sale. I have also sketched two kidneys from the carcasses of pigs—one healthy and sound, the other having tubercles. Kidneys should be quite smooth on the exterior, and free from spot or blemish. It will be seen that the kidney of the ox has numerous blocks, or segments; while that of the horse is heavy and lumpy, resembling an enlarged sheep's kidney. All kidneys having tubercles should be seized and destroyed.



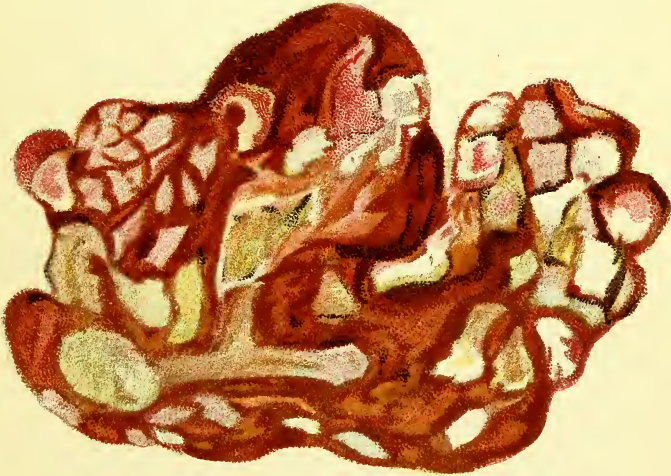


Plate IX. shows two fore quarters of mutton, with the shoulders hanging. Any one looking at this drawing can see the bright, healthy look of the one showing a deep red bark, or outer coating, intermixed with clear, good fat, and a cherry-coloured chop at end of neck, in contradistinction to the other, which is pale, without a particle of fat, having a washy look about it. This pallid, wet quarter of mutton was cut from a ewe's carcass, the animal having suffered severely from lung disease. The mackerel-back, and deep-coloured quarter was sketched from the healthy carcass of a well-fed sheep. The fine quality of mutton can be judged in the same manner as described for testing good nutritious beef, by passing the finger over the neck, or loin-chop, when, if first-rate, it will feel smooth and juicy.



Plates X. and XI. are sketches taken of three sheep's livers. No. 1 is sound and clear, without speck or flaw. No. 2 is represented as being full of flukes, or, as the butcher describes them, "flounders." Each of the veins shown contain hundreds of these horrible-looking creatures, which live on the poor animal's substance. This is described as "fluke-rot," and soon brings on a dropsical condition, ending in death. When examined by the aid of a powerful glass, they resemble a dab or flounder. In 1860 the West of England graziers suffered heavy losses by this fluke-rot, many thousands of carcasses being destroyed. Any one purchasing livers should see that they are free from heavy blue veins or tubercles; as depicted in No. 3, if cut clean through, any defect or unsoundness may easily be discovered. As before remarked, in the case of offal, it is the mysterious that has to be avoided. All these fluked livers should be diligently searched for by inspectors and destroyed, to prevent them being used for sauce, or the highly savoury "German ducks."

7 - 10 - 1860
Page 10



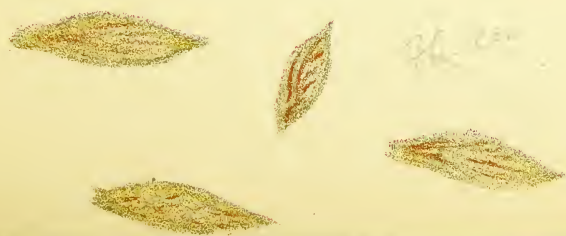
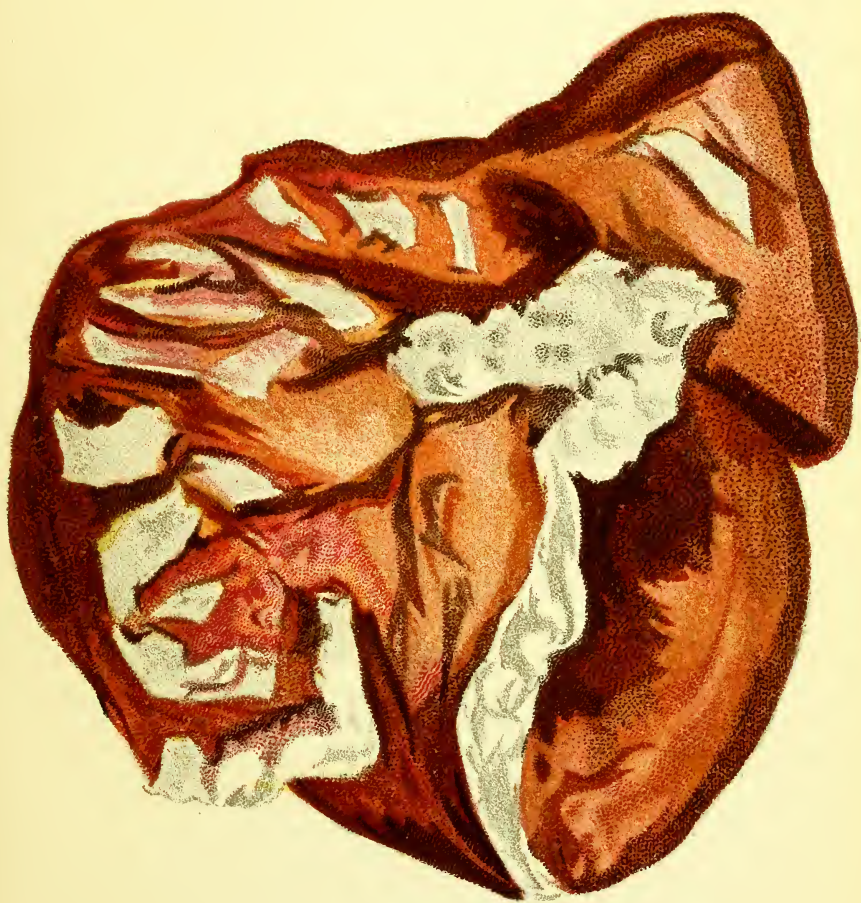




Plate XII. is sketched with the object of giving a fair representation of a piece of good English beef for roasting, being the wing-end of a fore rib, the most profitable, although the dearest part of roasting beef. The fat can be seen well intermixed with the *lean*, which is marbled, and of good colour. By its side is the half of a healthy, young, well-fed pig. Pork should be firm in the fat; thin rind, or outer skin; rib bones a pinky red; flesh creamy, with a juicy feel, like all good meat; the vertebræ red and porous. In very young carcasses it is easy to cut them clean down the chine with a knife.

Plate XII.



Plates XIII. and XIV. are drawn to show adhesion, caused by pleuro-pneumonia, or lung-disease, in the sheep. The sketch is taken of a side of mutton condemned in the London Central Meat Market; also a portion of the fore quarter, *i.e.* the ribs, from the diaphragm, or "skirt," to the extreme point of the breast below; the pericardium, or "heart-fat," is covered by an inflammatory adhesion. This should be well examined by inspectors.

It will be well for readers of this work to carefully study the coloured plates, and compare healthy carcasses with the unhealthy, and by that means obtain practical knowledge so essentially necessary in judging the quality and condition of meat. The drawings show the lymphatic adhesion before the butcher has brought his artistic aid to endeavour to deceive. The ribs are from an animal that died. The side is from an animal killed when suffering from disease.



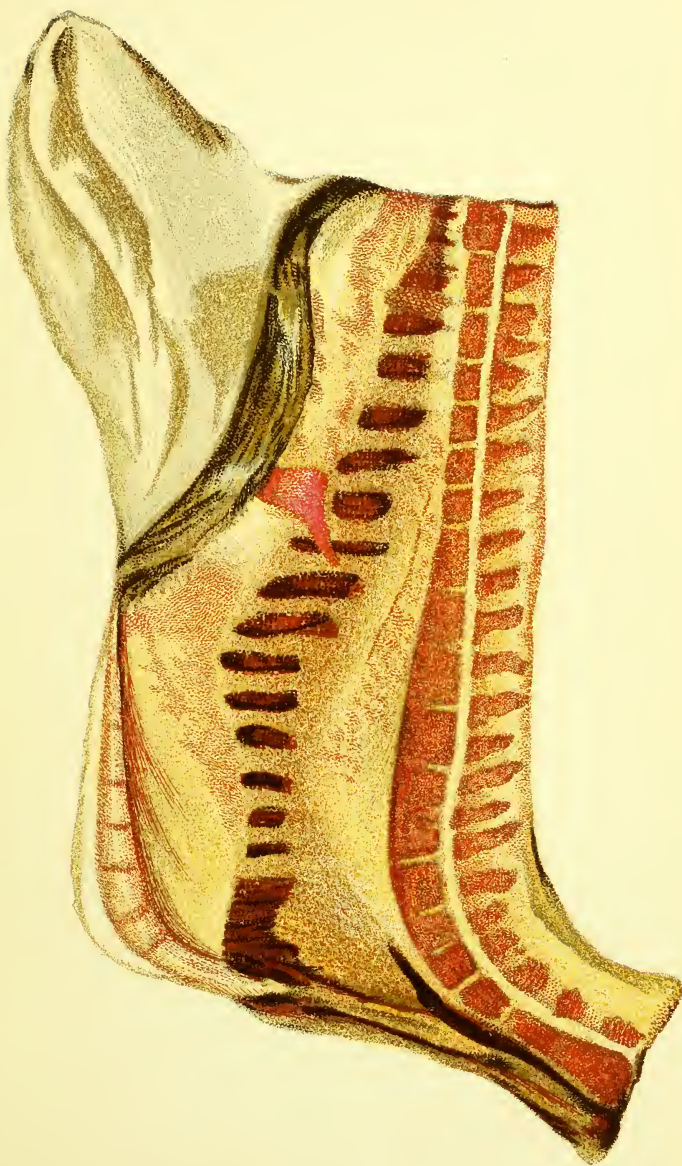


Plate XV. represents the half of the chest cavity of a cow that died from extensive adhesion of the lungs, the ribs being thickly coated with a lymphatic covering.

In dressing a beast suffering in this way, the butcher has to cut away the lungs; whereas, in a healthy animal, the lungs drop out when the diaphragm is severed, leaving the pleura, or covering of the chest, quite free from adhesion. So common is this disease among the bovine species, especially cows, that every butcher is conversant with it, and, when dressing, frequently removes the adhesion, and covers the part with warm fat, so as to hide the affected parts. As this gives the meat an unnatural look, the attention of an inspector would be drawn to it. It is one of the principal points in the inspection of all carcasses that the cavity of the chest or belly should be free from any adhesion.

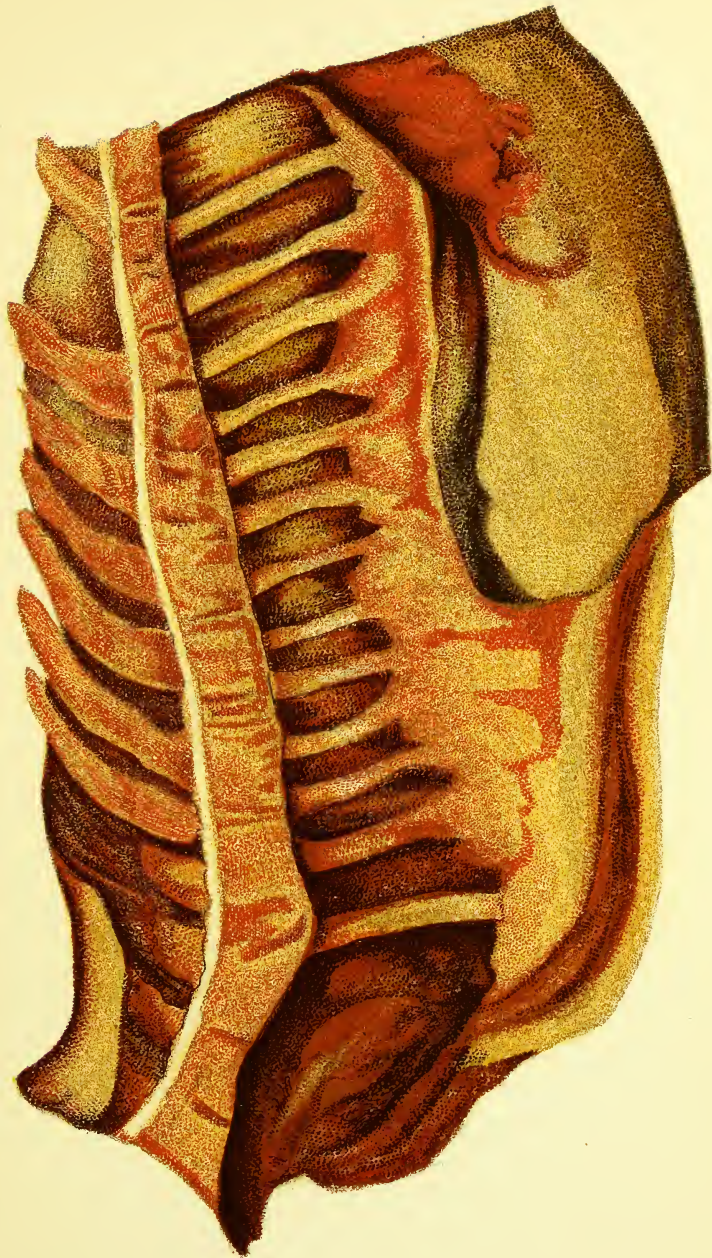


Plate XVI. is a drawing taken at the London Central Meat Market of the carcasses of two sheep and one side of mutton; the object I have in view by this illustration is to show the healthy condition of these carcasses. A short description will be all that is needful for the reader's guidance.

The points to which I would draw attention are the plump condition, red bark, or outer covering, marks on the back, called by the butcher, "mackerel-backed;" the clear condition of the pleura or ribs (see side), also the absence of any adhesion of the peritoneum or plate of belly, and the firm appearance of the suet and fat. The same smooth juicy condition should be found in all first-rate meat. In receiving carcasses of mutton for ration purposes, the inspector can tell by examination of exterior between the scapular, or bladebones, whether the meat is too fat or otherwise; if proportionately fat, he can see the dark mark of the lean showing through; if an excess of fat, these marks are not observable.

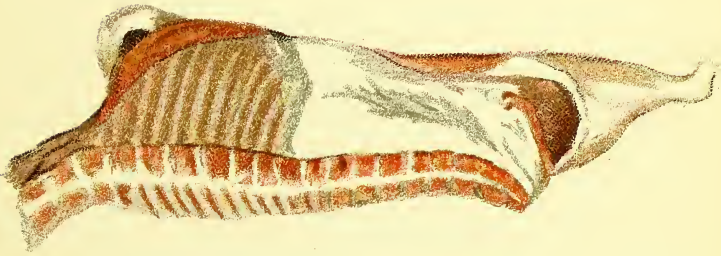


Plate XVI.

Plate XVII. is an illustration of a side, or half the carcass of a heifer in a healthy condition, as shown by the red bark, or outer covering of flank, and the porous bones; by the smooth, firm udder, or milk duct, of a creamy white colour; by the fine pelvic, or aitch-bone, which is easily divided by the butcher with a knife, and shows a gristle, or cartilage, when evenly cut through.

The pelvic cavity of the heifer is not distended; it resembles the ox in this particular, being well filled with fat.

Heifer beef of this description is readily purchased by butchers, it being equal to good ox meat, having full, juicy, and nutritious qualities. In judging good-quality meat, the inspector, after a short tuition, could readily tell by drawing his finger gently over the surface of a joint when cut, when, if first rate, he will find it smooth, with a full, juicy, nutritious condition and a good cherry colour. These appearances should be insisted upon when receiving beef for invalids.



Plate XVIII. represents the half of a bull's carcass. The object in placing this in the book is that an inspector may be able to distinguish bull beef from ox beef. The characteristics of bull meat, as shown, are coarse massive chine, or vertebræ, wide pelvis bone, dark thick root to genital organ, or pizzle, full muscular development of buttock, and immense crest, or collar, at the end of fore quarter. The flesh of the bull is dark, harsh, and stringy, not marbled, or grained, with fat like ox beef.

It is highly important that an inspector should be able to say with confidence upon examining meat whether it is bull beef or otherwise, as this sketch fairly portrays the sex; by a careful study of it he should be able to do so. It is especially necessary if he be called upon to give evidence in respect thereof before a magistrate, as the question of sex is most likely to be put, certainly in the case of identification.

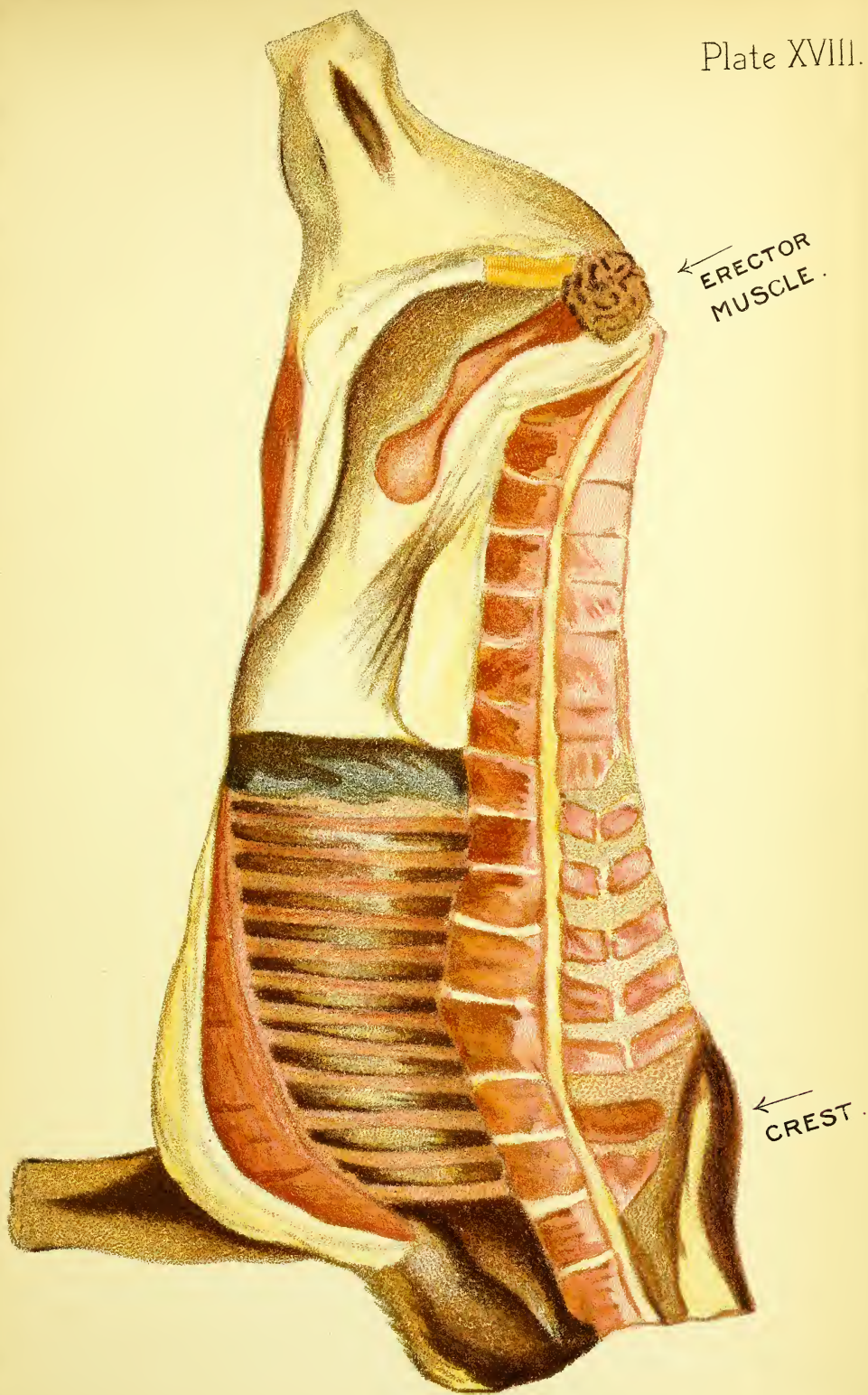


Plate XIX. shows the carcass of a sow-pig that had died from parturition. It will be seen upon examination that the pelvic cavity is much distended, inflammation strongly marked, cavity of the chest much discoloured, the milk ducts are cut away—if these had not been removed, they would have presented a fulness of teat, which could at once be detected as belonging to an animal about to be, or having recently been, delivered of its young—but notwithstanding the cunning of the consignor of this horrible stuff, the carcass was seized, condemned, and he, the sender, convicted.

When in company with an officer, I said, “I wish the sentence on those senders of diseased meat was imprisonment, without the option of a fine, and to be fed on the meat they send for other folk to eat;” the officer replied, “That would be ‘capital punishment.’”

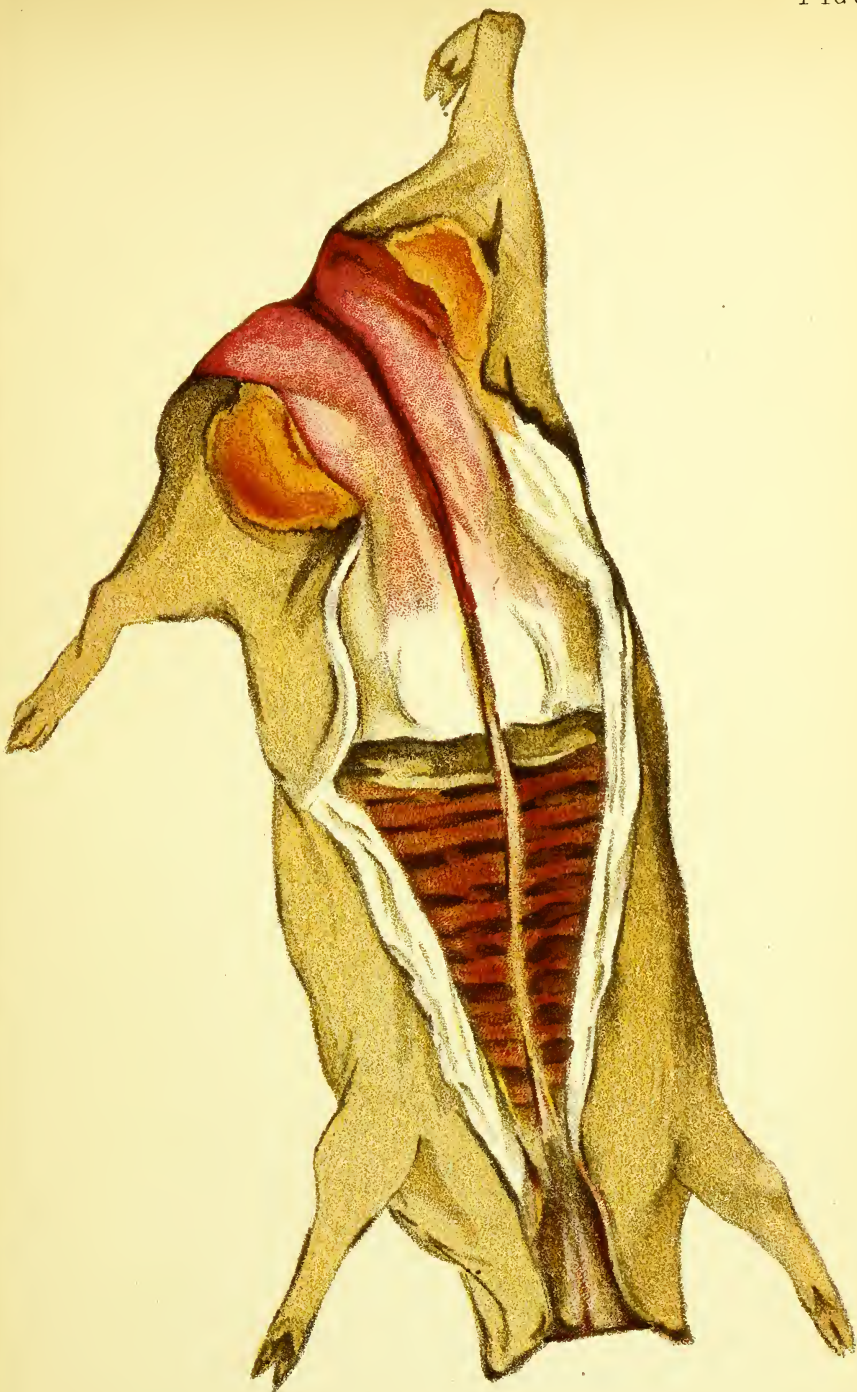




Plate XX. is a drawing of the hind quarter of a cow that had suffered from parturition. A glance is sufficient to show the strong inflammation of the pelvic cavity; this state of affairs is at times caused by rough treatment when the animal does not bring forth her calf in accordance with the owner's reckoning; examinations are made which tend to retard delivery still more; then force is used, and with such an amount of violence that the pelvic bone is frequently shattered, causing the poor animal intense suffering until relieved by death. As this is so apparent in the carcass, it can easily be seen by the inspector, for the butcher cannot hide the inflammatory condition of the pelvic cavity, although he cuts a considerable portion away when dressing these animals. In most cases of parturition the animal is medicinally treated, therefore the inspector should test for pungent odour, as advised, by probing above pelvic bone; however slight the odour may be, he will discover it there.

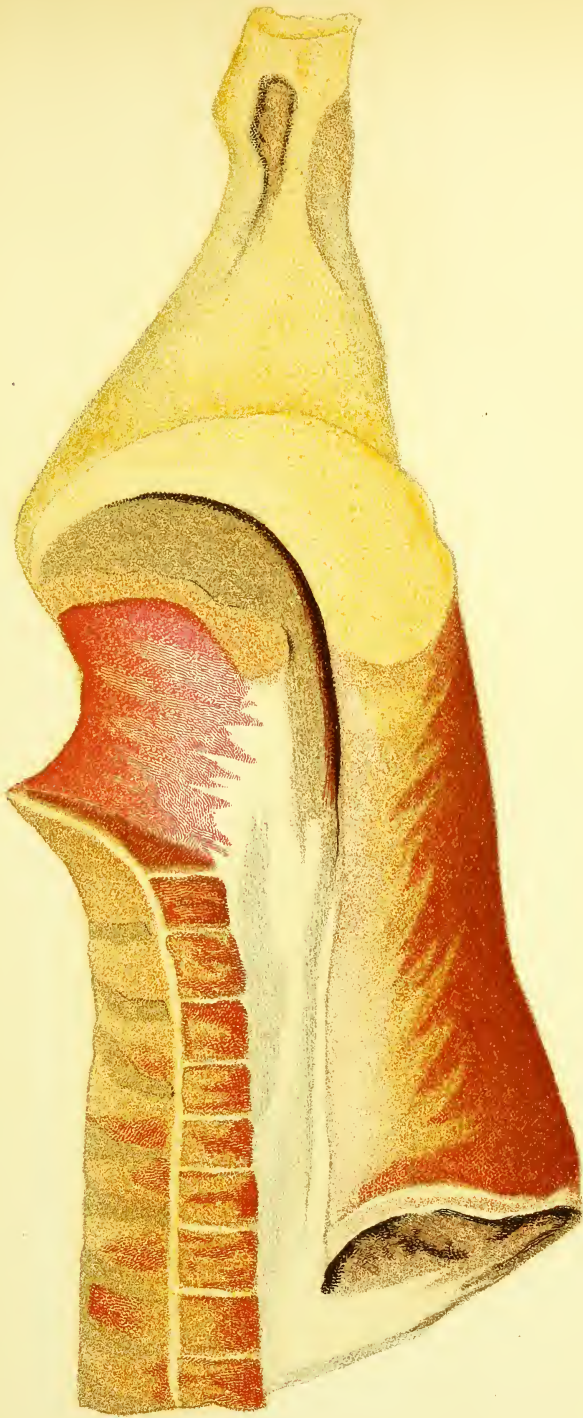
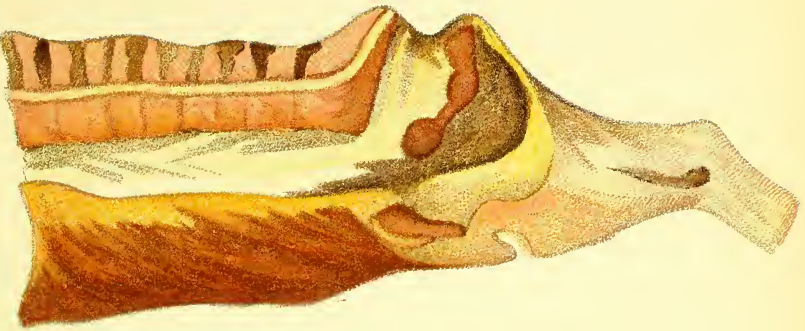


Plate XXI. represents the hind and fore quarter of an old cow, which may be easily distinguished from a heifer by the brown spongy condition of the milk duct or udder; by the distension of the pelvic cavity, by the hard brittle character of the vertebræ or chine bone, and the absence of cartilage.

In examining the carcasses of cows as to age, the milk duct, or udder, is of great assistance. Should the cow have had only two calves, the udder would be tolerably firm, about half fat; if three or more calves, then the udder becomes brown and spongy, as represented in the illustration, and is mostly cut away by the butcher when sending these carcasses to market. Other appearances there are, such as the ribs and joints presenting a white colour in contradistinction to the bones of young animals, which are of a pink and bluish shade; the flesh of old cows is mostly dark, and lacking nutrition. The fore quarter of an old cow is distinguishable from that of a young cow by the exceedingly bright yellow colour, by the concave, or hollow, appearance of the neck or sticking, and the prominent scapular, or bladebone.



Plates XXII., XXIII., and XXIV. are skeleton drawings taken by me when giving instructions to officers relating to the judging of meat, with the object of showing the position of the joints, so that they should be quite conversant with the carcasses anatomically. These, together with the diagram of the ox, also shown in this book, I found of great service to them in making themselves thoroughly acquainted with the technical terms given by butchers and contractors to the several parts of the carcass when cut into pieces. The meat was roughly taken from the quarters of beef, leaving the bones hanging. I considered they would be useful in imparting information to any inspector, as he might take them in their order, and fit the several parts or joints to them, and so gain the requisite knowledge. There are two hind quarters, back and front view, and one fore quarter, full back view.









Plate XXV. represents the side (fore and hind quarter) of healthy ox beef, clear in peritoneum and pleura, diaphragm intact.

The inspector will be able, by the aid of this illustration, to see the absence of adhesion in chest cavity, which is a sign of health; also that the diaphragm, or "skirt," is attached midway between the fore quarter and the hind quarter. In all cases, the inspector, in examining carcasses, should look well under the "skirt," as any inflammation of the lungs existing in the chest cavity will be discovered there; frequently the butcher, when skinning the ribs, or tearing away adhesion, overlooks this important feature by leaving the diaphragm, simply removing the under skin, or covering.

Characteristics of youth may be noticed by the redness and porous condition of the vertebræ, or "chine bone;" also by the pink colour of ribs—portions of the bark, as seen on the flank, being a deep cherry, which is also indicative of health.



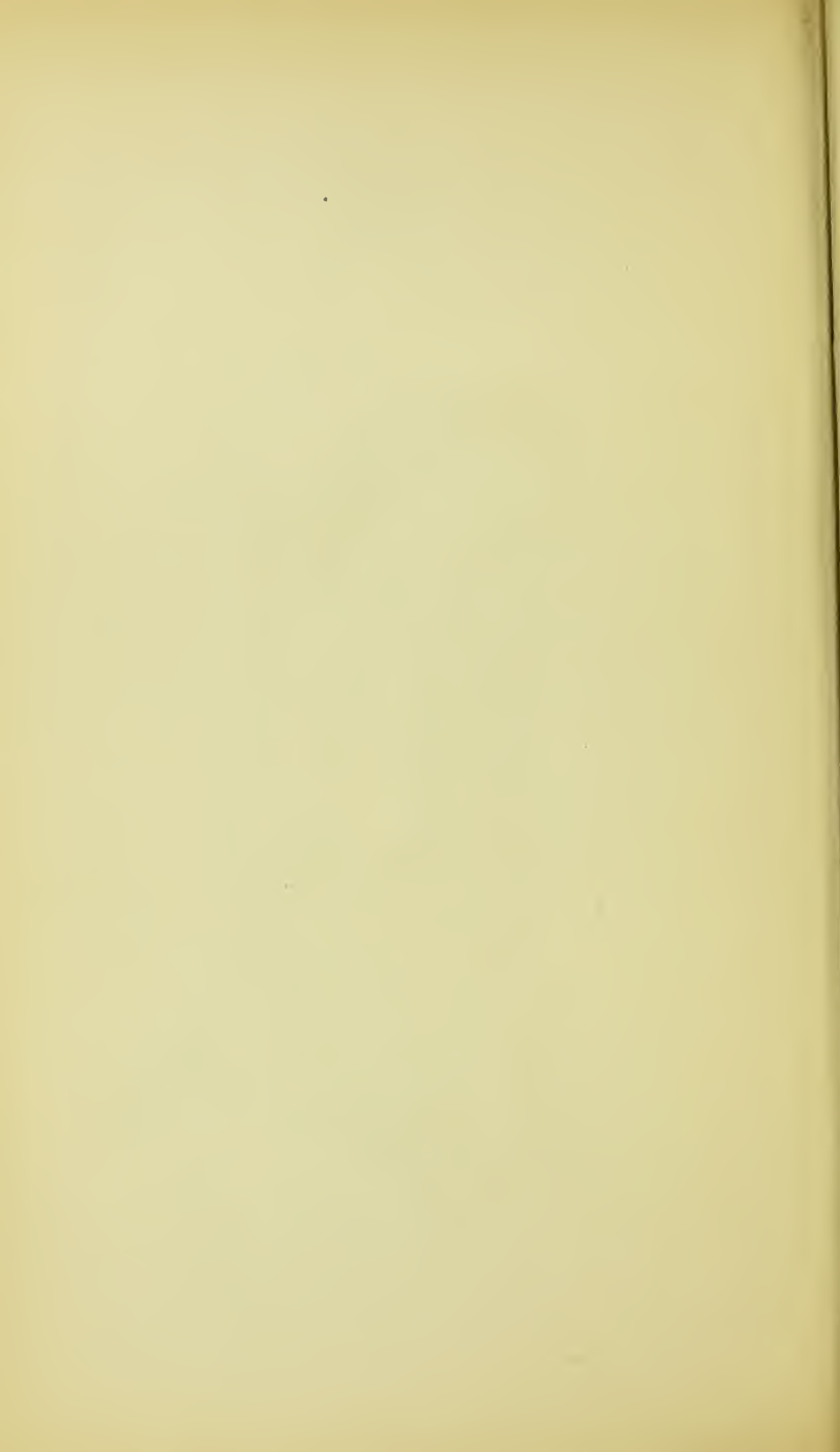
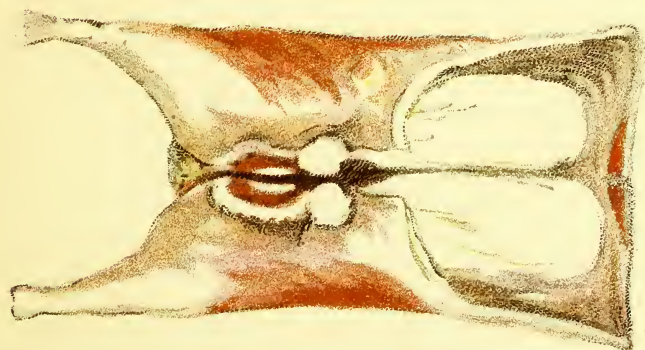
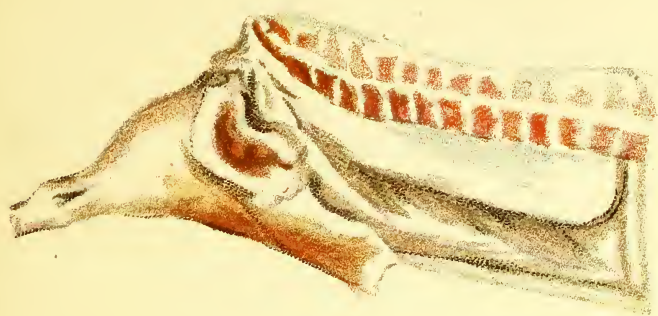


Plate XXVI. is a drawing taken in the London Central Meat Market of one hind quarter, a pair of quarters, and one side of good healthy mutton, which can be known by the sound, firm, and white colour of suet, or covering of kidneys, by the red bark shown at sides, by plump, good condition as to feeding, and by the clean, clear condition of ribs; the peritoneum, pleura, and diaphragm are quite free from adhesion (see side).

As to the sex, the two hind quarters and the single hind quarter are from clean wether sheep, noticeable by "cod-fat," and fine condition of the bone; the side represents half the carcass of a maiden ewe, distinguished from the old ewe by the smooth condition of the udder, or milk duct, and the pink shade on the rib bones.

The old ewe has a brown spongy looking udder; the bones are brittle and blanched.



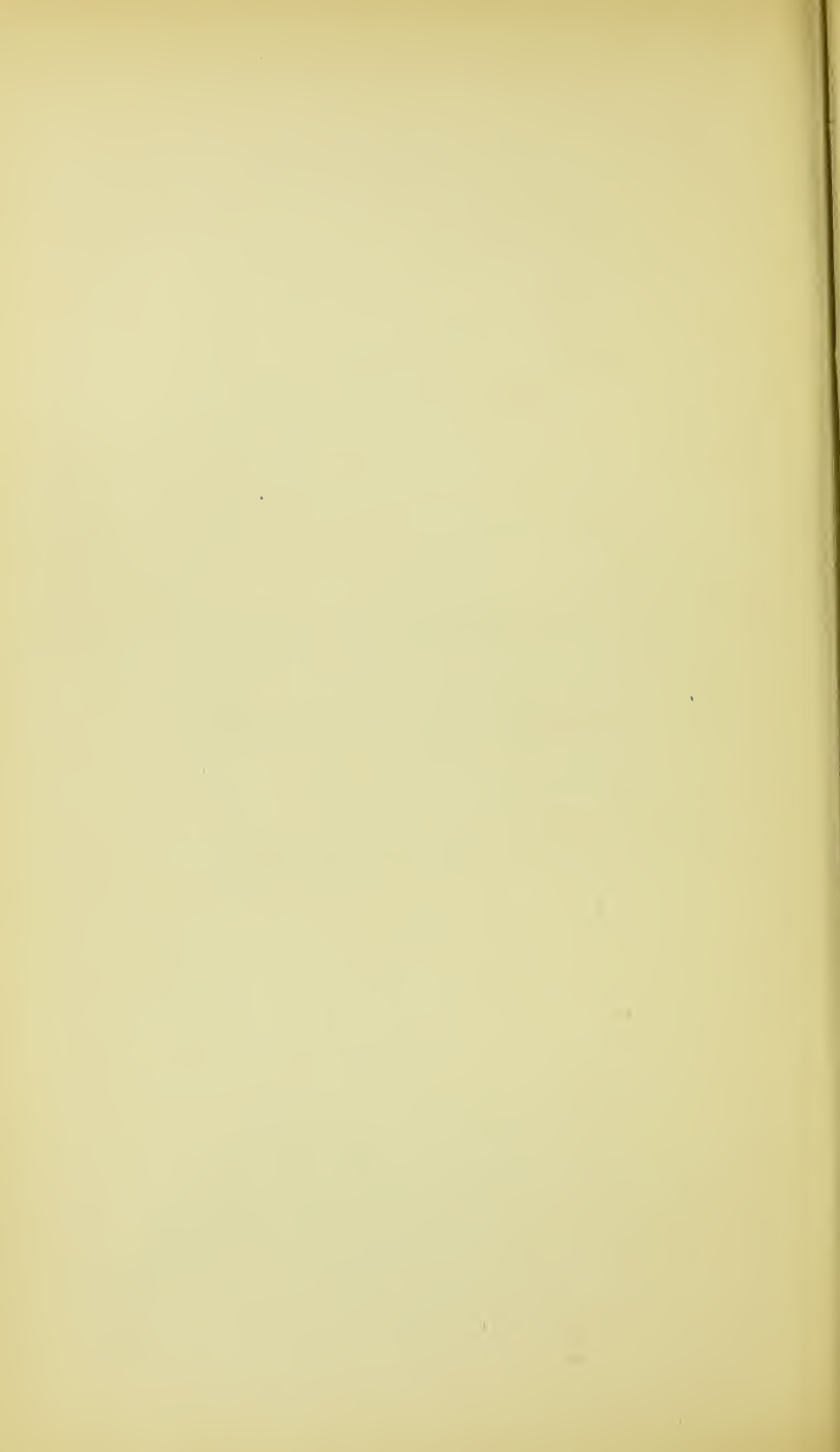


Plate XXVII. This illustration represents the head from the carcass of a cow that had suffered from abscess on the jaw; it will be seen by the drawing that it is of a cancerous kind, being streaked with hard, sanguineous matter, encased in a leathery covering; so offensive is this, emitting such a terrible odour, that I consider it exceedingly dangerous to human life to inhale. No butcher should attempt to take the hide or covering from the part affected, but should cut the head and skin clean away, and certainly then be protected with a short hand hook, for if any abrasion of the skin or cut be on his hands, highly hazardous would it be to attempt the flaying. There ought to be no hesitation on the part of an inspector in seizing the carcass of an animal affected with these terrible putrescent abscesses. I have seen cows suffering from these open sores, their owners having concealed the condition by cementing with hard material resembling plaster of Paris.





Plate XXVIII. This illustration shows the appearance of a healthy sheep's pluck, consisting of lungs, heart, and liver; also one in a diseased condition, that was sketched at Smithfield. It will be seen on examination that the diseased pluck is covered with tubercles on the lungs and liver, each tubercle being charged with matter, very disgusting in appearance. The other pluck being quite free from speck on lungs or liver, which should be the condition of all that are healthy.

Of course any person having ordinary eyesight would not purchase anything like the diseased pluck, if offered for sale; but it is in the disguised form these offals are likely to be used, minced and highly flavoured with herbs, and sold mostly to the poorer classes.



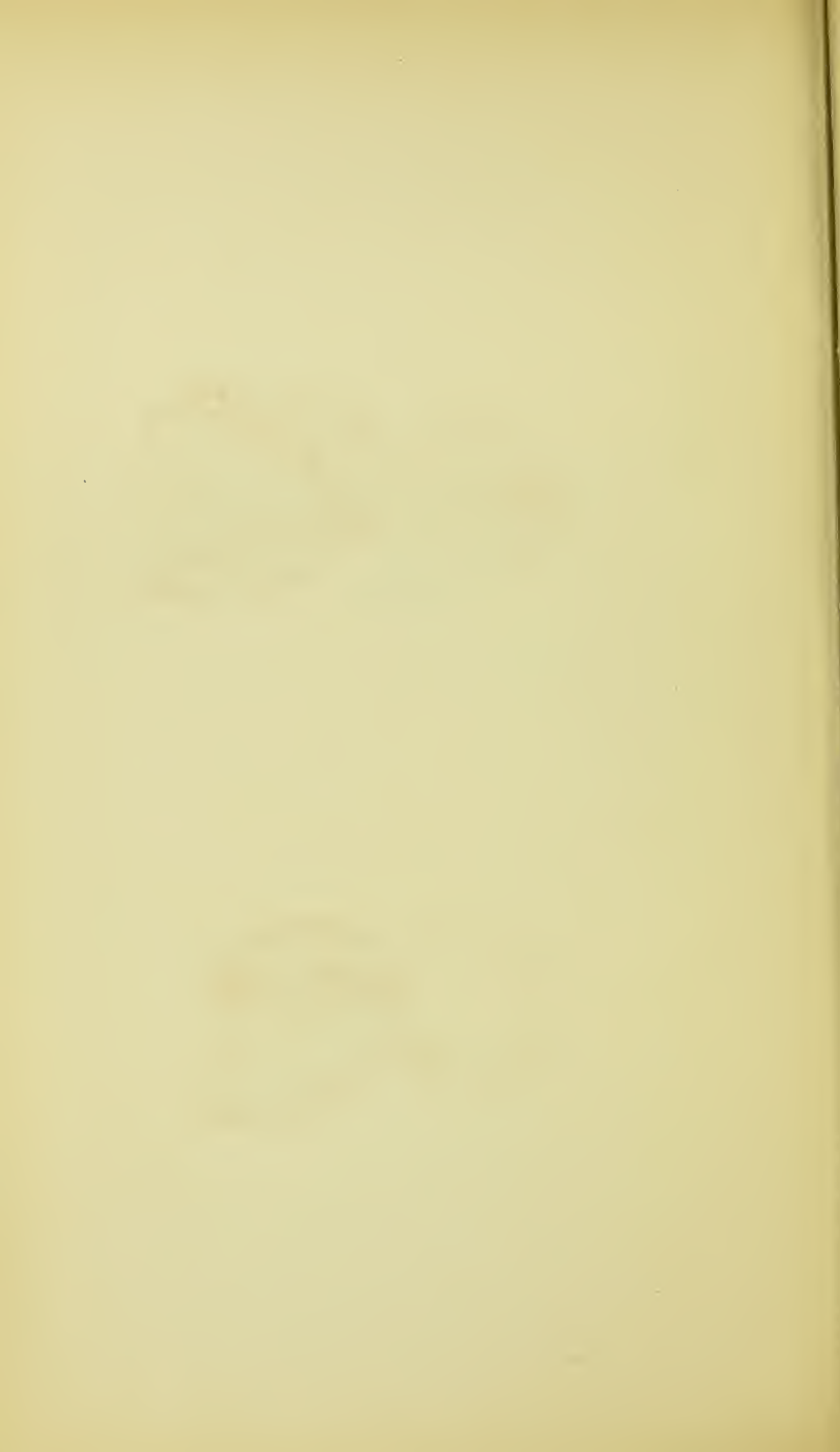
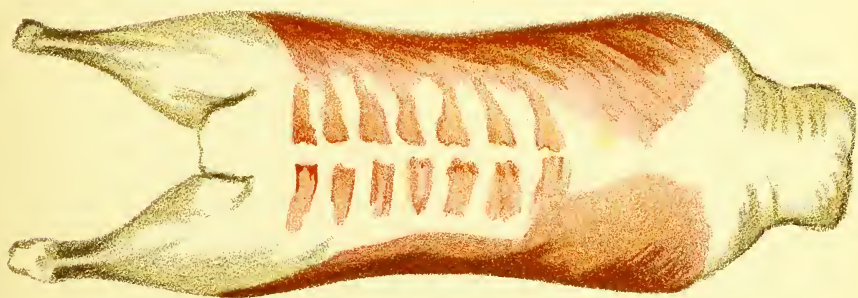


Plate XXIX. is drawn with the object of helping inspectors to distinguish carcasses of sheep as to sex. It will be noticeable, upon examination, that it represents the carcass of a ram, or tup, and a section, or half carcass, also a half carcass, or side, of a wether sheep. The principal characteristics in the ram by which the difference of sex can be known are a thick scrag, or neck, general muscular appearance, the genital organ, or pizzle, twice the size of an ordinary pencil (see blue colouring), called by the butchers "a thick string." The side of wether carcass is finer at the neck, or scrag; the genital organ being half the thickness of the tup. The bones of the ram will be seen coarse and more massive. Butchers mostly cut away the pizzle, or thick string. Where contracts are supplied, it should be a stipulation that the genital organ shall not be interfered with; then it is simple for an inspector to distinguish clean wether mutton from ram. Latterly there have been several instances of the butchers leaving only the casing, or outer covering, of the pizzle; this is so shallow a dodge that it can be easily detected. If an inspector is in doubt, he should have the pelvis divided, when, if ram mutton, he will notice, as in the case of bull beef, a coarse, thick erector-muscle at the back of the pelvic bone.



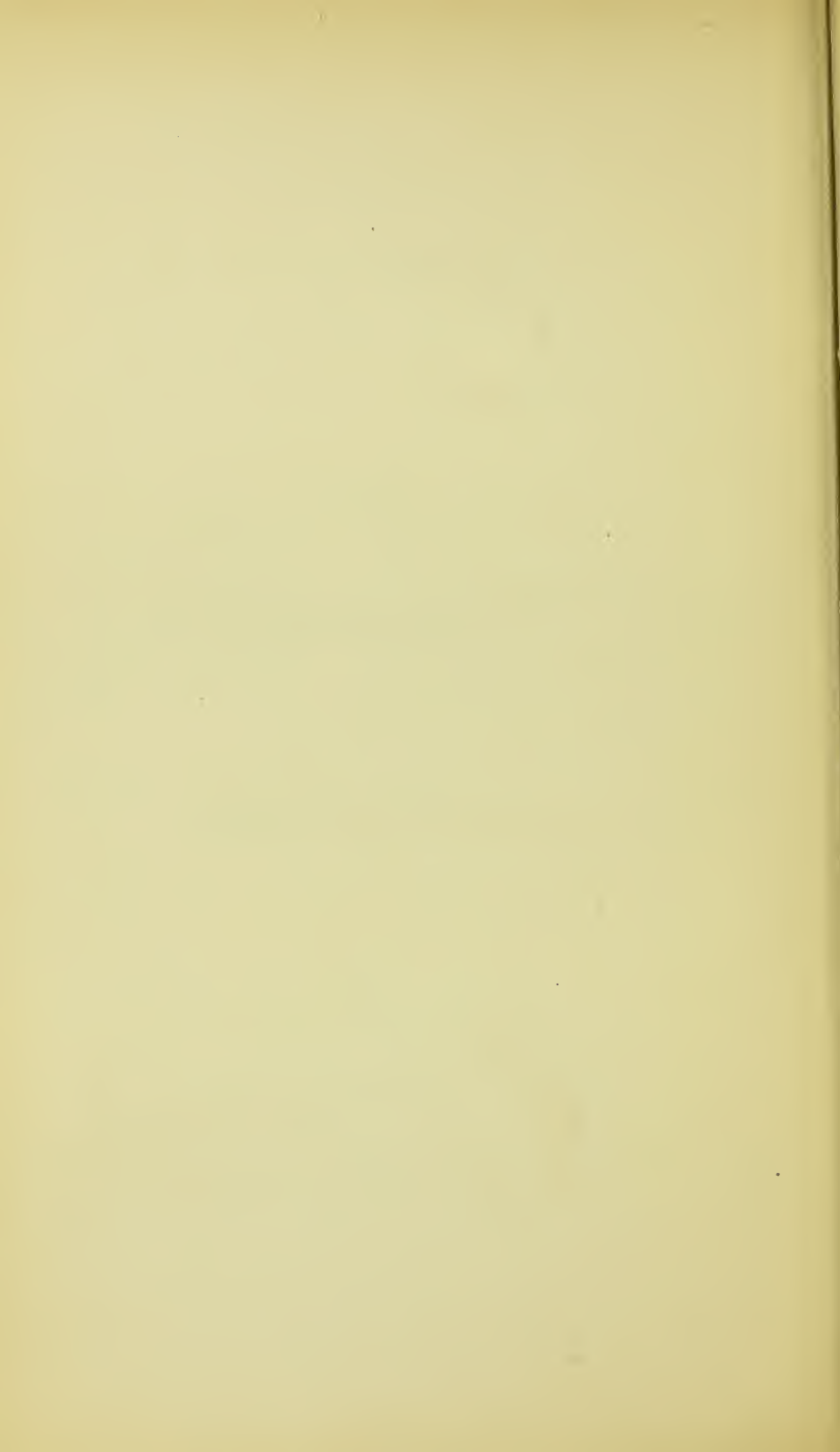
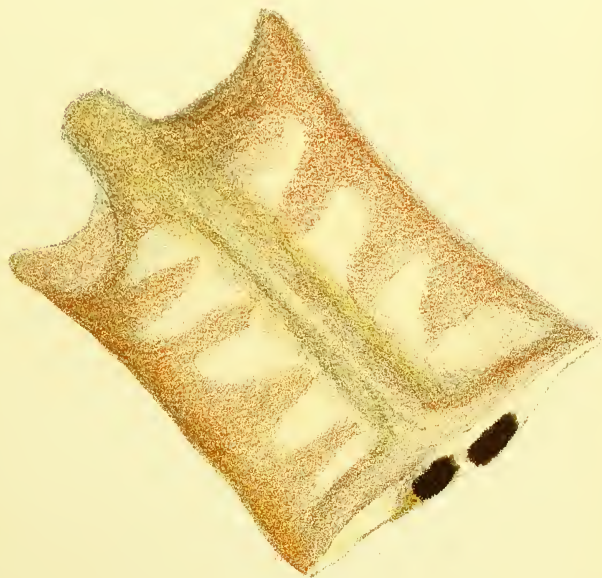
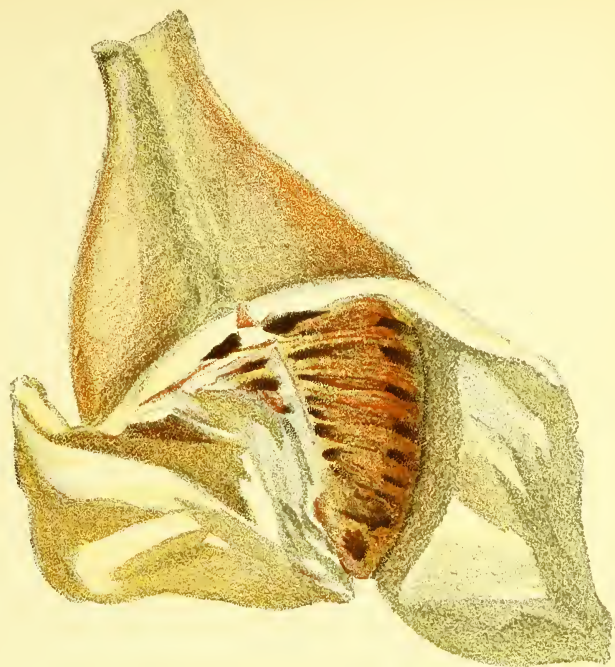


Plate XXX. is a sketch taken at the London Central Meat Market condemned-meat shed, and is an illustration of dry-rot in the early stage, showing diminution of the lean, which gradually decreases as the disease advances. It will be seen that the flesh is very dark in colour, the outer coating, or bark, pale.

The parts consist of two fore quarters, and one chine, or saddle of mutton, from a fairly fat sheep. The peculiar characteristics of dry-rot in sheep are: the muscles of the animal waste considerably, at times to attenuation, the lean diminishing before any wasting of the fat takes place.

As seen in the drawing, the flesh in the loin, or mutton chop, is exceedingly slight, about the size of one's thumb-nail, black and non-nutritious.

Upon an inspector having suspicion of dry-rot in the carcass of a sheep, he should have it cut through, when the condition of the flesh will be seen as described.



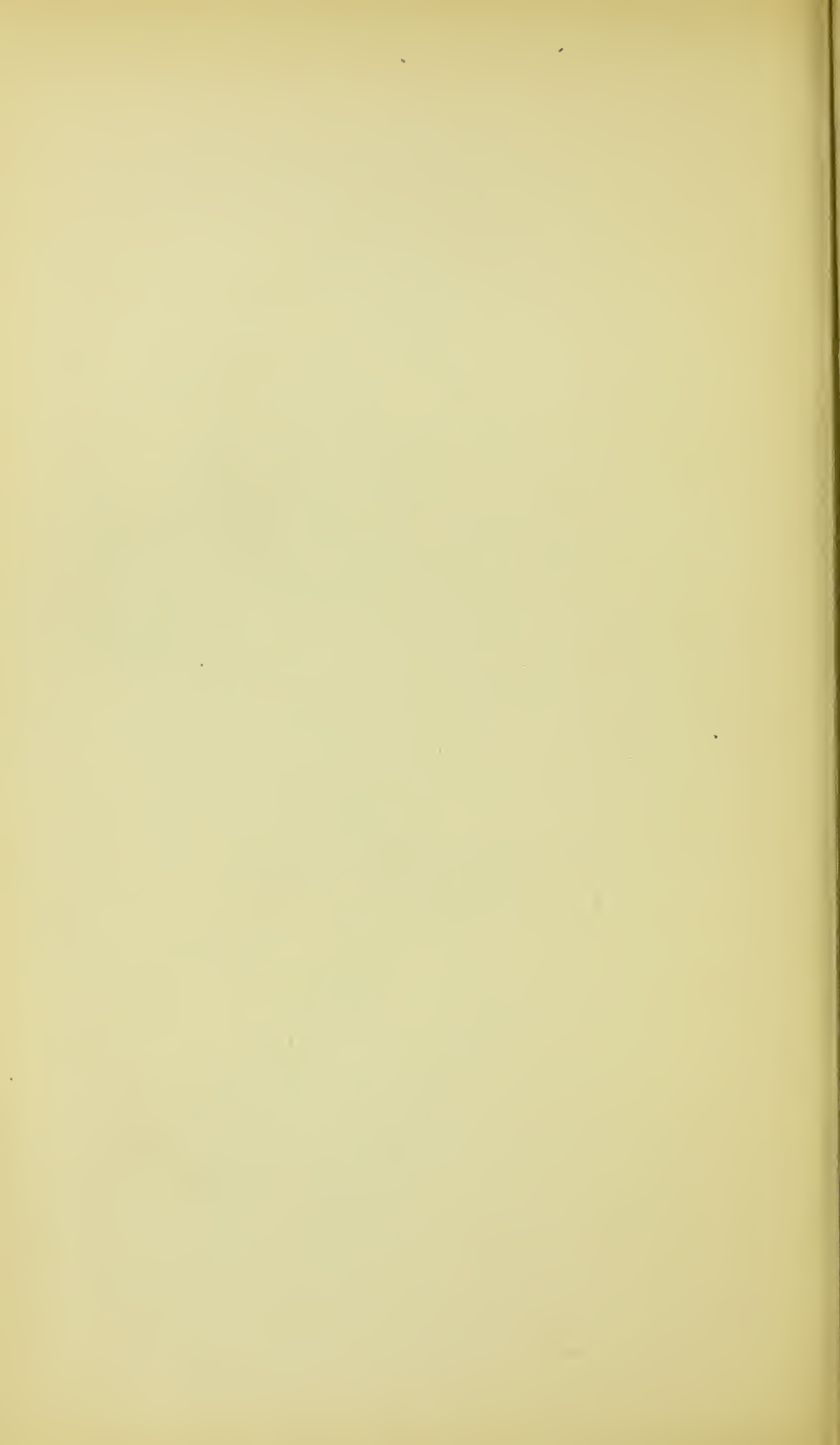
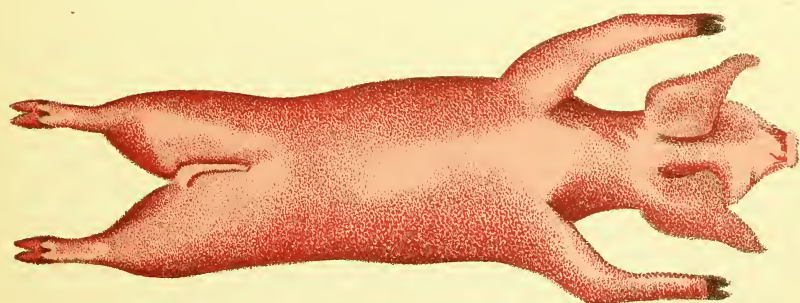
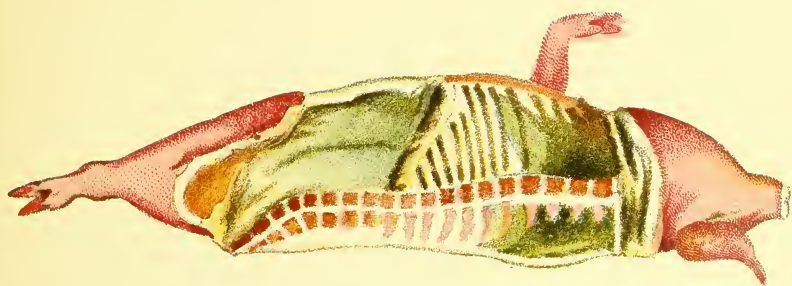


Plate XXXI. represents the carcass of a pig that had been suffocated, and a side of pork, or section, or half a pig. It frequently occurs in transit that pigs get down in the railway-trucks, and are trampled to death by their fellow-travellers; appearances after death being a pink colour over the exterior, or rind, the flare or lining of the belly discoloured, kidneys gorged, the whole of the interior indicating putrescence by the brilliant green patches from the neck to the pelvis. It is impossible for any one to make error in respect to this class of meat; not only is it disgusting to the sight, but so easily is it detected by the olfactory nerve, that at once such meat should be destroyed.



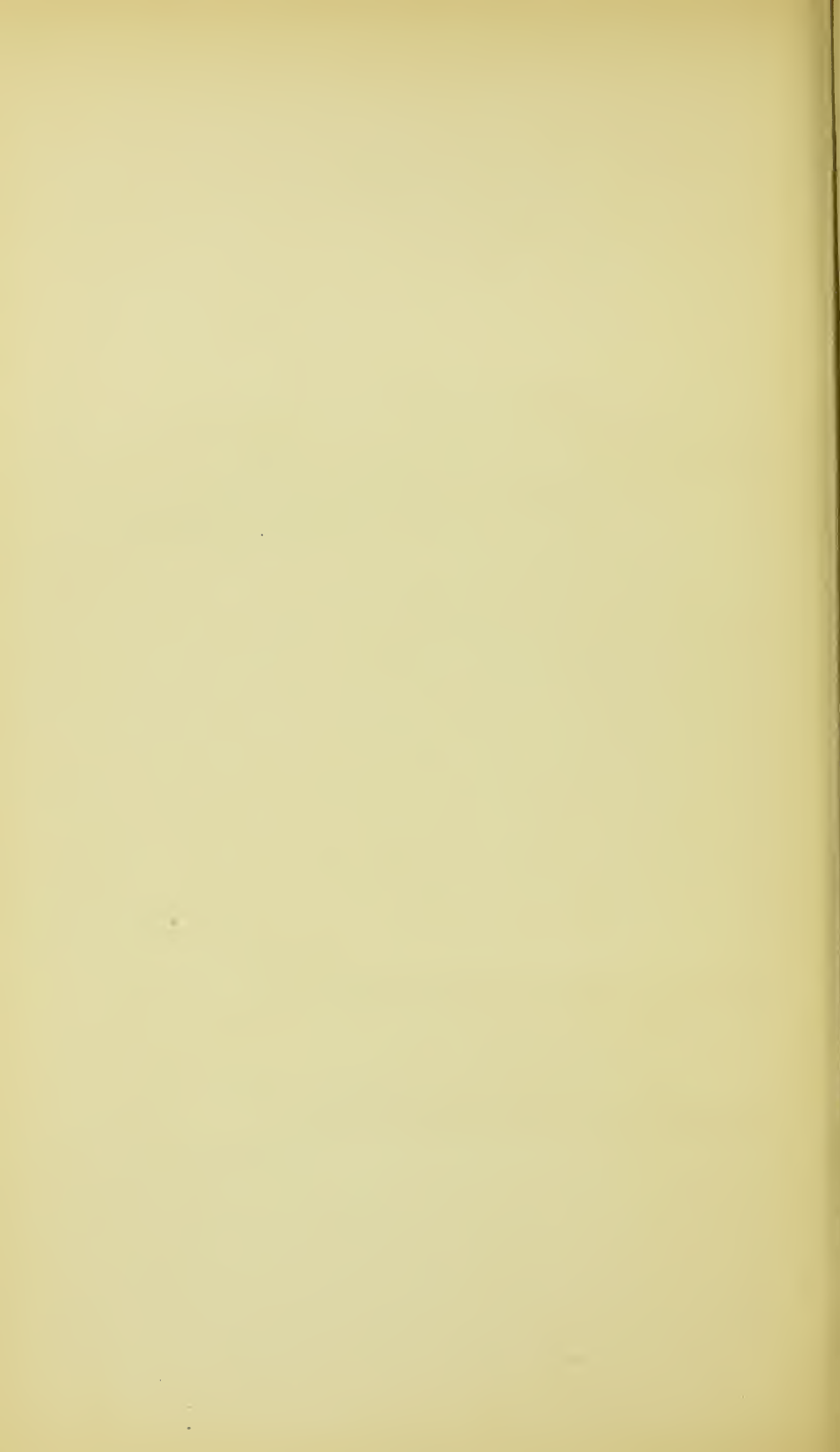
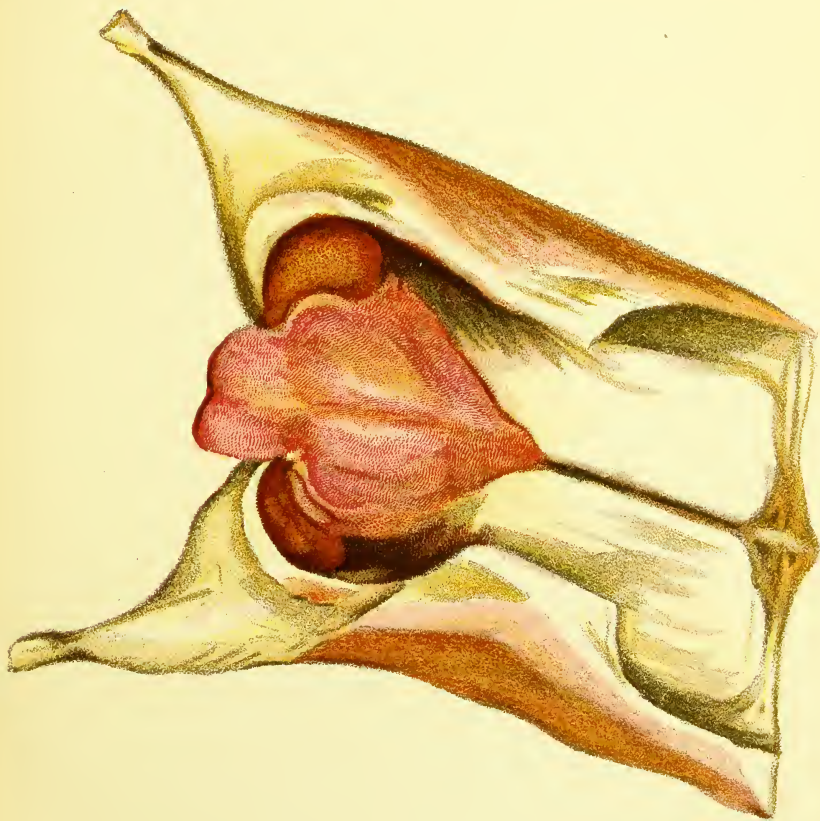


Plate XXXII. exemplifies two quarters, the hind part, or half the carcass, of a large Lincolnshire-bred ewe; one of the objects I have in placing this drawing in the book being to convey to the observer the amount of violence that is used to bring about such a condition of things. The pelvic cavity being wholly exposed, shows the inflammatory appearance always presented as shown in the illustration of the heifer and the carcass of a sow-pig, when the young are forcibly removed. An inspector can also see at a glance, by the discoloration at the vent, that an animal has been slaughtered suffering from parturition; then he should have the pelvis divided, when the whole thing will be plain, as here portrayed. Should this book ever be seen by farmers and graziers, I hope they will be more patient, and allow Nature to finish her work—it will be a saving to them of their stock; they earning for themselves the character of kindness and consideration to their beasts.

Plate XXXII. exemplifies two quarters, the hind part, or half the carcass, of a large Lincolnshire-bred ewe; one of the objects I have in placing this drawing in the book being to convey to the observer the amount of violence that is used to bring about such a condition of things. The pelvic cavity being wholly exposed, shows the inflammatory appearance always presented as shown in the illustration of the heifer and the carcass of a sow-pig, when the young are forcibly removed. An inspector can also see at a glance, by the discoloration at the vent, that an animal has been slaughtered suffering from parturition; then he should have the pelvis divided, when the whole thing will be plain, as here portrayed. Should this book ever be seen by farmers and graziers, I hope they will be more patient, and allow Nature to finish her work.—It will be a saving to them of their stock; they earning for themselves the character of kindness and consideration to their beasts.





In closing this work, I would here ask, "How is it that diseased meat finds its way to London?" I have put this question to myself over and over again, receiving the same answer: "Want of knowledge." The sanitary inspectors appointed as inspectors of nuisances are mostly conversant with drainage, measurement, and examination of insanitary dwellings; but where do they get their knowledge of meat? These officers are elected by the country local authorities to supervise all articles of food. Let the sanitary inspectors take lessons, make themselves acquainted with the diseased flesh, then, in unison with the local police (who mostly know when and where dropped and diseased cattle are), they could prevent this stuff going from any country town or village; that is, seize and take before the magistrate, who will readily condemn it, and issue a summons against the owner; this will prevent this class of meat finding its way surreptitiously to the mincing establishments.

I am fully acquainted with the difficulties surrounding an inspector in the discharge of his onerous duties, and with the tactics adopted to

circumvent and frustrate his attempts to discover diseased meat, as a dealer and butcher in this nefarious trade will take immeasurable pains to conceal all his movements in connection with it. If possible, he will take a circuitous route to the slaughter-house with the carcass, or animal; following the same plan when conveying the meat to the railway station, frequently going to another station several miles away, and booking it to London, "To be left till called for." As cunning must be met by cunning, it would be well if sanitary inspectors visited the slaughter-houses of these gentry at night and early morning, when not expected, as it is mostly at those times operations are going on at these places (all well known to the police authorities, who are acquainted with the men and their habits, describing them as "cad-butchers"). Then the inspectors would often detect meat of a doubtful nature being prepared for human food, and could, if not confident in themselves, ascertain where this class of meat was going, and then wire to the authorities to whose district it is consigned, so that they might be on the alert, and in this way checkmate the would-be foisterer of diseased flesh for human consumption. It is the boast of these men that they can find receiving houses for this vile stuff, saying, with a chuckle, "Oh, anything will do for London." I am glad to know that many of them have sung a different tune in

Holloway Gaol. I feel certain that, with the co-operation of the police in all counties, the traffic in diseased meat might be considerably reduced, if not wholly stopped. In many towns the police are made inspectors under the Contagious Diseases Animals Act. Why not appoint them under the Sanitary Departments Inspectors of Meat ?

APPENDIX.

NUISANCES REMOVAL ACT, 1855.

CLAUSES II. AND III.

THE Medical Officer of Health, or Inspector of Nuisances, may at all reasonable times inspect and examine any Animal, Carcass, Meat, Poultry, Game, Flesh, Fish, Fruit, Vegetables, Corn, Bread, or Flour, exposed for sale, or deposited in any place for the purpose of sale, or of preparation for sale, and intended for the food of man, the proof that the same was not exposed or deposited for such purpose, or purposes, or was not intended for the food of man, resting with the party charged, and in case any such Animal, Carcass, Meat, Poultry, Game, Flesh, Fish, Fruit, Vegetables, Corn, Bread, or Flour, appear to him to be diseased, or unsound, or unwholesome, or unfit for the food of man, it shall be lawful for such Medical Officer of Health, or Inspector of Nuisances, to seize, take, and carry away the same, or direct the same to be seized, taken, and carried away, by any Officer, Servant, or Assistant in order to have the same dealt with by a Justice, and if it shall appear to the Justice that any such Animal, or any of the said Articles, is diseased, or unsound, or unwholesome, or unfit for the food of man, he shall order the same to be destroyed, or so disposed of as to prevent such Animal or Articles from being exposed for sale, or used for such food, and the person to whom such Animal,

Carcass, Meat, Poultry, Game, Flesh, Fish, Fruit, Vegetables, Corn, Bread, or Flour, belongs, or did belong, at the time of sale, or of exposure for sale, or in whose possession, or on whose premises the same is found, shall, upon conviction, be liable to a Penalty not exceeding Twenty Pounds for every Animal, Carcass, or Fish, or piece of Meat, Flesh, or Fish, Bread, or Flour, so found, or at the discretion of the Justice, without the infliction of a Fine, to imprisonment in the Common Gaol or House of Correction for a Term of not more than Three Calendar Months.

In case any person shall in any manner prevent such Medical Officer of Health, or Inspector of Nuisances, from entering any Slaughter-house, Shop, Building, Market, or other place, where such Animal, Carcass, Meat, Poultry, or Fish, is kept, for the purpose of sale, or of preparation for sale, or shall in any manner obstruct or impede him, or his Servant, or Assistant, when duly engaged in carrying the provisions of this Act into execution, such person shall be liable to a Penalty not exceeding Five Pounds.

PUBLIC HEALTH ACT, 1875.

CLAUSES 116, 117, 118, 119.

Clause 116.

ANY Medical Officer of Health, or Inspector of Nuisances, may at all reasonable times inspect and examine any Animal, Carcass, Meat, Poultry, Game, Flesh, Fish, Fruit, Vegetables, Corn, Bread, Flour, or Milk, exposed for sale,

or deposited in any place for the purpose of sale, or of preparation for sale, and intended for the food of man, the proof that the same was not exposed or deposited for any such purpose, or was not intended for the food of man, resting with the party charged ; and if any such Animal, Carcass, Meat, Poultry, Game, Flesh, Fish, Fruit, Vegetables, Corn, Bread, Flour, or Milk, appears to such Medical Officer, or Inspector, to be diseased, or unsound, or unwholesome, or unfit for the food of man, he may seize and carry away the same himself, or by an Assistant, in order to have the same dealt with by a Justice.

Clause 117.

If it appears to the Justice that any Animal, Carcass, Meat, Poultry, Game, Flesh, Fish, Fruit, Vegetables, Corn, Bread, Flour, or Milk, so seized, is diseased, or unsound, or unwholesome, or unfit for the food of man, he shall condemn the same, and order it to be destroyed or so disposed of as to prevent it from being exposed for sale, or used for the food of man ; and the person to whom the same belongs, or did belong at the time of exposure for sale, or in whose possession, or on whose premises the same was found, shall be liable to a Penalty not exceeding Twenty Pounds for every Animal, Carcass, or Fish, or piece of Meat, Flesh, or Fish, or any Poultry, or Game, or for the parcel of Fruit, Vegetables, Corn, Bread, or Flour, or for the Milk so condemned, or, at the discretion of the Justice, without the infliction of a Fine, to imprisonment for a Term of not more than Three Months.

The Justice who, under this section, is empowered to convict the offender, may be either the Justice who may have ordered the article to be disposed of or destroyed, or any other Justice having jurisdiction in the place.

Clause 118.

Any person who in any manner prevents any Medical Officer of Health, or Inspector of Nuisances, from entering any premises, and inspecting any Animal, Carcass, Meat, Poultry, Game, Flesh, Fish, Fruit, Vegetables, Corn, Bread, Flour, or Milk exposed, or deposited for the purpose of sale, or of preparation for sale, and intended for the food of man, or who obstructs, or impedes any such Medical Officer, or Inspector, or his Assistants, when carrying into execution the provisions of this Act, shall be liable to a Penalty not exceeding Five Pounds.

Clause 119.

On complaint made on oath by a Medical Officer of Health, or by an Inspector of Nuisances, or other Officer of a Local Authority, any Justice may grant a warrant to any such Officer to enter any building, or part of a building, in which such Officer has reason for believing that there is kept, or concealed, any Animal, Carcass, Meat, Poultry, Game, Flesh, Fish, Fruit, Vegetables, Corn, Bread, Flour, or Milk, which is intended for sale for the food of man, and is diseased, unsound, or unwholesome, or unfit for the food of man; and to search for, seize, and carry away, any such Animal, or other Article, in order to have the same dealt with by a Justice under the provisions of this Act.

Any person who obstructs any such Officer in the performance of his duty under such warrant, shall, in addition to any other punishment to which he may be subject, be liable to a Penalty not exceeding Twenty Pounds.



